

14 (1)



July 21, 1920.

The Honorable

The Secretary of the Interior.

Sir:

Reference is made to the letter of the Commissioner of the General Land Office ("F" Susanville 06712) of July 29, 1919, requesting a report on the application of the Walker Mining Company for easement for a Tailings Reservoir Site under the Act of February 1, 1905 (33 Stat. 628) affecting lands within the Plumas National Forest.

This Department is of the opinion that if used in accordance with the provisions of certain stipulations executed by the applicant on the 12th day of May, 1920, the right of way is so located as not to interfere with the proper occupation by the Government of the Plumas National Forest, California, but that if not so used they will interfere. Subject, therefore, to the conditions expressed in said stipulations, the map of said right of way is hereby approved.

Two copies of the stipulation are enclosed for your information. This Department would be glad to learn the action taken in this case by your Department.

Respectfully,

Edward Ball

Acting Secretary.

D.K.

Inc.

DEPARTMENT OF THE INTERIOR

GENERAL LAND OFFICE

WASHINGTON

ADDRESS ONLY THE
COMMISSIONER OF THE GENERAL LAND OFFICE

July 30, 1920.

Walker Mining Company : Submitting map for approval.

The Secretary
of the Interior.

Sir:

Pursuant to the provisions of section 4 of the act approved February 1, 1905 (33 Stat., 628), the Walker Mining Company has applied for right of way for the proposed Tailings Reservoir within the Plumas National Forest, Susanville, California land district, shown on the accompanying map.

This application has been examined and found to conform to the regulations and the map conforms to the township plat. Aside from the fact that the land is within a national forest, it has not been otherwise reserved or withdrawn. Favorable reports have been made on the application by the Geological Survey

DEVELOPMENT AND OFFICE
DEPARTMENT OF THE INTERIOR

Susanville 08718 "F" 28

and Reclamation Service, and by letter dated July 21, 1920, the Acting Secretary of Agriculture advised you that the company had executed and filed certain stipulations required by his Department for the protection of the forest, and that subject to the conditions expressed in said stipulations, the map could be approved.

No objection appearing on the records of this office, I recommend that the map be approved, subject to all valid existing rights and to the stipulations executed by the company as aforesaid, it reserving rights of way for canals or ditches constructed by authority of the United States.

Very respectfully,

(Signed) C. L. Jackson
Commissioner.

AUG 4 - 1920

Map approved by
(Signed) ALEXANDER T. VOGELSANG.

First Assistant Secretary

and returned to G. L. O.

Copy to G.S.
Copy to Forester.
Inclosure No. 5829.

US 000231

REPORT ON

WALKER MINING COMPANY

BY

V. A. HART

November 17, 1915.

**International Smelting Company
Coele Plant**

WM. WRAITH
GENERAL MANAGER

SALT LAKE CITY, UTAH, Nov. 17, 1918.

Mr. Wm. Wraith, General Manager,
International Smelting Company,
Salt Lake City, Utah.

Dear Sir:-

The following report is on the property
belonging to the Walker Mining Company, an Arizona
Corporation.

This property is located about twenty-five
miles north of Fortale, a station on the Western Pacific
Railroad, in Plumas County, California.

CLAIMS, TIMBER, 2000, WATER:

The company has 54 or 55 claims, some of which
were recently taken up, 10 of which are in full, patented.
Claims and surrounding country are covered by a heavy growth
of pine, fir and balsam timber, sufficient to last the mine
for an indefinite period.

The mill claims have ample spring water for all
ordinary mill and domestic purposes.

HYDRAULIC MINING:

The mine is situated at an altitude of about
6700 feet, the mill some 800 feet lower and distant about 4500
feet by tram. (Mill building partially completed - tram not
yet erected.)

There are heavy snows to contend with in winter, the average depth being 8 to 10 feet, while as much as 15 feet has been known to be on the ground at one time at the mine and in Tortola.

If the roads are kept open by regular traffic, the winter time will be the most favorable for the hauling of the concentrates, as the roads are practically over level ground the greater portion of the way. No slides or heavy repairing of roads to contend with once they are in good condition.

ROSEBROS, DAY MINING, ETC.:

The property is opened up by a vertical shaft 125 feet in depth with a 95 ft. drift on the 65 foot level and about 45 feet of drifting on the 125 foot level besides numerous crosscuts. (See maps, plan and section.)

A tunnel driven sometime ago also is shown. This, however, did not cut the main ore body. Croppings are shown some 40 feet south of the tunnel face which, I believe, are on the continuation of the present ore sheet.

The vein is a fissure in a hard, heavy, dense, dark felsitic rock, very likely a diorite. The ore is a heavy primary sulphide carrying about 15% iron. The copper is in the form of chalcopyrite with gold and silver values. At least on the upper, or 65 foot level, a little secondary bornite was seen.

The diorite is very blocky, the interstices of which are filled with the silicious iron ore. The diorite is also heavily impregnated, possibly replaced, by the same material. Some portions, resembling massive diorite, I find to run ore. This class of ore should make to great depth.

The hang wall is very well defined and should be easy to mine to - the foot wall, however, of the ore is not easy to determine as the values grow less to the west (strike of the vein approximately east-west, dip 70° to 80° to the south). There is a wide mineralized zone lying to the north of the minable portion of the vein, that contains much low grade material. This, however, cannot be classed as ore at this time and will not be further considered.

On the edge of the slope of the hill which rises at an angle of about 15° is a very likely looking mass of gossin. Above this and extending for 1500 feet or more is a heavy iron outcrop, limonite and hematite. This outcrop is from 60 to 150 feet in width, very strong and promising.

A small portion, 10 feet in width, approximately above the continuation of the present ore shoot showed 0.80% Cu.

The present ore shoot, as developed, is now beyond the limits of the gossin on the surface. If ore exists under this iron capping there is almost no end to the possibilities of the property. I do not think, however, that it will do so, but it is well worth proving up.

TONNAGE, GRADE, ETC:

A study of the accompanying maps will show the following: Ore by weighted averages runs:

Fe .0809 oz., Ag. 3.39 oz., Cu 6.36%.

This includes only crosscut averages, all crosscut samples being weighted according to their length, four crosscuts on the 65 ft. level and three on the 125 ft. level being used. The two levels were then combined by straight arithmetical average, although the 65 ft. level is opened up for about twice the length of the 125 foot level.

The width of the ore is over ten feet. You will note crosscuts on the lower level that are still in ore. I use 10 feet, however, in tonnage calculations. This is very conservative.

You will remember that we suggested some development in this property to fully determine the width of the ore - the blocky condition being such that I was afraid that the crosscut, as run, was on a cross break. The later crosscuts still show the same blocky condition but they have the ore. The various crosscuts show as follows:

First or 65 ft. level.				
	Width ft.	Fe	Ag	Cu
(8) Shaft Crosscut	7'	.05	3.38	4.97
(1) Crosscut No. 1	13'	.066	4.80	8.66
(2) " " 2	9.8'	.03	3.81	9.06
(3) " " 3	12.5'	.015	1.94	4.07
General Average for level	10.57'	.0809	3.41	7.56

crosscut of 125 ft. level.

	Width ft.	At	Ag	On
North crosscut	+11.0'	.044	3.24	5.105
Middle "	10.0'	.057	2.75	4.90
South "	+7.0	.04	3.70	6.45
General Average for level	+9.55	.04	3.12	5.57

Note: In shaft crosscut only 5.6 feet were sampled, but the ore extended into the shaft so 7 feet of ore was allowed.

In No. 1 crosscut 15 feet were sampled, but a width of only 12 feet was allowed.

The north and south crosscuts are still in ore.

General average of both levels.

Width 9.95 ft., At .0399 Ag 4.29 On 6.56

I believe that a deposit of this nature can be safely estimated to a depth of fifty feet below the present workings, or to a total depth of 175 feet. The extreme length of the ore sheet as now opened up is 115 feet. Ore extends practically to the surface, but I deduct 10 feet, giving me a block 165 ft. deep x 115 feet in length by 10 feet in thickness. Allowing 11 oz. ft. per ton (it will run less) this shows 17,250 tons of very probable ore, a portion of which is already mined.

Under a 14 cent copper market, this ore should net in the mine 38.07 per ton. To retire \$100,000.00 worth of preferred stock will, at 35.00 net per ton, require 20,000 tons. A horizontal extension of the above ore body for 15 feet will

bring the tonnage up to that figure. I feel that it will do much more than that.

On a 15 cent copper market, about 14,500 tons should net the \$100,000, while on a 16 cent market about 14,000 tons would be needed.

COST OF SINK AND WASH HOLE:

Larger drills have shown that this ore can be handled at a lower figure than indicated by the results obtained with small butterfly type machine.

The country rock works very hard even with large drills but little of this need be moved except in shaft sinking and crosscuts to the ledge. I believe that the figures used, viz., sinking \$40.00, drifting \$10.00 and raises \$6.00 per foot can be bettered except possibly the sinking as the drifts and raises will either be in ore or be abandoned.

The hauling cost of concentrates was estimated at \$6.50 per ton. A contractor who has hauled in that country for 15 years estimates the cost at \$7.50 per ton under present road conditions, but he allows himself a clear profit of \$1.50 per span of horses.

The Feather River Lumber Company is very likely to extend their logging line about 8 to 9 miles into that section next year. This would mean a 15 to 16 mile haul which should reduce the cost to about \$5.00 per ton.

In any event, an expenditure of from \$8,000.00 to \$10,000.00 on roads along the soft Grizzly Creek Meadows will be advisable so soon as the tonnage will justify same.

RECOMMENDATIONS:

I would recommend the taking over of 65,000 shares of preferred stock carrying 7% interest and share per share bonus of common stock.

I would further recommend the optioning of 250,000 shares of common stock for the sum of \$40,000.00 due on July 1, 1916.

The optioning of 215,000 shares of common stock at one dollar a share seems at this time to be a high figure but I consider it advisable to tie it up as there is no telling what the development to the north may show.

Under these options we are to have the privilege of prosecuting development work as we see fit, i.e., the Teller Mining Company is to do this work for us at cost or not to exceed the figures above stated. We are to have the right to take the property over and push this development in case it is not proved to suit us.

The first development suggested would be the sinking of the shaft to a depth of 175 feet or 50 feet further than it now is and then drive both ways on the 175 ft. level and to the north on the present 65 foot level which is now gaining about 1 foot of back for every 4 feet driven.

If ore of a commercial grade is encountered for a length of four hundred feet or more on these two levels then the sinking of the shaft for an additional two hundred feet with drifting both ways and continued drifting on the 175 foot level will be advised.

The first development suggested - 50 feet of sinking and approximately 700 feet of drifting with probably two raises for air of about 100 feet each will cost not to exceed \$10,000.00. This or even less will show us whether we wish to go further and will show whether or not the taking over of the 250,000 shares for \$40,000.00 is advisable. With proper equipment, this work should be done in about two and a half months. Work out here is still in the experimental stage so no accurate estimate as to how much can be done is possible.

The further sinking of 200 feet, if justified by the showing above, with some drifting on the 575 level and further drifting on the 175 foot level, will not show a net value of a million and a quarter dollars blocked, but there may be changes in width and value that may justify the taking over of this stock. Should the 575 level hold to grade and size and the drifts to the north still show well, the chances are that in a deposit of this nature, one would be justified in recommending the taking over of the 315,000 shares of stock.

I realize fully that the time is too short to expect

to block out the price at which the property is rated, but I do believe that it is possible to do sufficient work to justify the purchase price even if it is not completely blocked out.

Water is an unknown factor which may completely upset our calculations.

The proposition sums itself up to me as being well worthy of a trial.

All of the above is based on the supposition that titles, stock issues, etc., are all sound.

Respectfully submitted,

V. A. Hart

c

**MOODYS MANUAL
OF RAILROADS AND
CORPORATION
SECURITIES**

TWENTY-FIRST ANNUAL NUMBER

INDUSTRIAL SECTION

1920

4239

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INDUSTRIALS (Anaconda Copper Mining Co.)

total depth of 233 feet; a level connecting the two shafts at this depth was driven. The ore is of high grade, running from 4¼% to 9% copper, and is particularly desirable on account of its excess sulphur content, which, manufactured into sulphuric acid, can be used for leaching the oxidized ores of the L. o Aguirre Mines.

Lo Aguirre and Farfana Farms.—The L. o Aguirre and Farfana Farms, the former consisting of 17,387 acres, the latter of 980.3 acres, were purchased first, in order to secure water rights belonging to the farms and which will furnish an adequate supply for mining and metallurgical purposes; second, to control the intervening space between the two mines; third, to avoid liability for damages to farm lands in the immediate vicinity of the proposed Reduction Works.

The Anaconda Copper Mining Co. will, from time to time as it becomes necessary, advance funds for the requirements of the Santiago Mining Co., taking its stock at par for such advances. Upon the completion of the financing of this company the Anaconda Copper Mining Co. will own approximately 80% of the issued stock of the Santiago Mining Co.; the remainder will be owned by William Braden and his associates under the contract between them and the Exploration organization of the Anaconda Copper Mining Co. The plan of initial development adopted contemplates the development of Africana to a production of 500 tons of ore per day and of Lo Aguirre to a production of 750 tons of ore per day. Development of ore bodies is being continued, but construction of mining and metallurgical works has been deferred until the resumption of normal conditions.

Company Enters Metal Manufacturing Field.—Early in 1918 a rod and wire mill, capable of rolling into rods 100 tons of copper per day and drawing into wire 80 tons of copper per day, was completed. Of the company's production in 1919 there was rolled into rods 43,241,497 lbs. copper; of this amount 13,914,008 lbs. were manufactured into wire, of which 6,405,782 lbs. were made into strand.

Gas Production.—In May, 1918, the company had developed natural gas production in the Sweet Grass Hills of Montana. It was hoped to secure a flow sufficient to operate the company's smelters and supply local towns with fuel and light and the Northern Montana Natural Gas Co. was formed. The project, however, was not successful and this Gas Co. was dissolved in Sept., 1919.

Walker Mining Co.—On Oct 1, 1918, the International Smelting Co. exercised its option on 630,000 shares out of a total of 1,250,000 shares of this company's stock. The holdings of the Walker Mining Co. consist of 38 patented lode claims and two placer claims, all forming a compact lot of ground located in Plumas County, Cal., approximately 22 miles from Portola, a station on the Western Pacific RR. Development operations have opened up a body of ore approximately 300 ft. in length, averaging 16 ft. in width and a grade of about 4% copper. In 1919 there were mined and milled at this property 38,785 tons of ore producing 5,983 tons of concentrates.

Arizona Oil Co.—On account of the necessity for protecting the fuel oil supply upon which the operations of the International Smelting Co. at Miami depend, it was deemed advisable in 1918 to purchase jointly with the Inspiration Consolidated Copper Co., a tract of 160 acres of oil-producing land in the Bakersfield District of California. A company known as the Arizona Oil Co. was formed, and title to the property was conveyed to it. This company has an authorized capital stock of \$2,500,000, of which \$1,632,000 has been issued (par, \$100). The Anaconda Copper Mining Co. and the Inspiration Consolidated Copper Co. each owns one-half of the issued stock. In 1919 this company produced 456,174 bbls. of oil and paid \$8.50 per share in dividends, of which the Anaconda Copper Mining Co. received \$69,360.

Anaconda Lead Products Co.—This company was formed in 1919 to engage in the production of white lead by means of an electrolytic process. A plant has been erected at East Chicago, Ind., adjacent to the plant of the International Lead Refining Co.; this plant, which was expected to be put in operation early in 1920, will have a capacity of 20 tons of white lead per day.

Copper Export Association, Inc.—Early in 1919, this association was formed under the provisions of the Webb Act for the purpose of conducting the export business of a number of American copper producers. Working capital was supplied by the various members of the association in proportion to their production.

DEVELOPMENT.

During 1919, there was done in the mines of the company, in the form of drifts, crosscuts, upraises, shafts and winzes, 20.39 miles of development, as compared with 41.85 miles during 1918; the shafts of the company were sunk additional depths aggregating 1,749 ft. The shaft on the Orphan Girl Claim was sunk to a depth of 10.36 ft.; a station was cut at this point and a crosscut started in a northerly direction to cut the veins apexine on the Orphan Boy and the Anglo-Saxon claims. At the Anaconda mines

PHR00001993

A Regular Meeting of the Board of Directors of the International Smelting Company was held at the office of the Company, No. 25 Broadway, New York City, Thursday, June 23rd 1921, at 12.15 o'clock P. M.

PRESENT: Messrs. C. F. Kelley, John D. Ryan, W. D. Thornton, B. B. Thayer, A. H. Melin and William Wraith.

ABSENT: Dr. L. D. Ricketts.

The President, Mr. C. F. Kelley, acted as Chairman of the meeting. The minutes of the meeting of the Board of Directors, held on Thursday, May 26th 1921, were read and approved.

The Chairman presented to the meeting a financial statement estimated as of June 30th 1921, which, on motion duly made and seconded, was approved and ordered placed on file.

On motion, duly made and seconded, it was

RESOLVED: That the action of the President in authorizing the installation at the Miami Smelter of a shed, tracks, unloading pocket and conveyer system required for the storing of Miami Company concentrates in the smelter yard be, and the same is hereby ratified, approved and confirmed.

The cost of the said installation to be approximately \$23,455.00, less a credit later of \$7,272.00, making the final cost for this work \$16,183.00, providing facilities for the storing of 50,000 tons or approximately \$13,814.00 if provision is made for the storing of 30,000 tons only.

On motion, duly made and seconded, it was

RESOLVED: That the action of the President in authorizing the expenditure of approximately \$6,000.00 for the taking down of the reverberatory Stack at the Miami Smelter be, and the same is hereby ratified, approved and confirmed.

On motion, duly made and seconded, it was

RESOLVED: That the action of the officers in executing an agreement dated June 7th 1921 between the Walker Mining Company and International Smelting Company, in connection with the purchase of the Copper ores and copper concentrates of that Company be, and the same is hereby ratified, approved and confirmed.

There being no further business before the Board, on motion duly made and seconded, the meeting adjourned.

D. B. Hennessy.

Secretary

A Special Meeting of the Board of Directors of the International Smelting Company was held at the office of the Company, No. 42 Broadway, New York City, Wednesday, October 9th, 1918, at 12.30 o'clock P. M.

PRESENT: Messrs. C. F. Kelly, B. B. Thayer, W. D. Thornton, A. H. Melin, L. D. Ricketts and C. E. Mills.

ABSENT; Mr. John D. Ryan.

The President, Mr. C. F. Kelley, in the Chair.

The minutes of the meeting of the Board of Directors held on September 26th, 1918, were read and approved.

The Chairman submitted to the meeting a communication from the Inspiration Consolidated Copper Company, accepting the proposition of the Company to add the sum of \$20.00 per ton to the item of \$34.00 per ton now in our contract with that Company covering the charges called "Converting, Freight East and Refining."

On motion, duly made and seconded, it was

RESOLVED: That the communication be placed on file.

On motion, duly made and seconded, it was

RESOLVED: That the action of the officers of this Company in purchasing from the Plumas Mines Company 630,000 shares of stock of the Walker Mining Company for the sum of \$630,000.00 be, and the same is hereby ratified, approved and confirmed.

On motion, duly made and seconded, it was

RESOLVED: That Mr. O. M. Kuchs and Mr. J. B. Whitehill, or either of them, be, and they are hereby appointed true and lawful attorney in our name to vote as out proxy upon the stock of the Walker Mining Company owned by us at the Stockholders' Meeting of that Company to be held at Phoenix, Arizona, on October 24th, 1918.

On motion, duly seconded, it was

RESOLVED: That the action of the officers of the Company in entering its subscription of Two hundred and fifty thousand dollars (\$250,000.00), face value, of the Fourth Issue of Liberty Bonds be, and the same is hereby ratified, approved and confirmed.

There being no further business before the Board, on motion, duly seconded, the meeting adjourned.

D. B. Hennessy,
Secretary.

MIN 00000185

REFERENCES
WALKER BROTHERS BANKERS
NATIONAL COPPER BANK

7-68-w
X
TELEPHONE
WASATCH 4122

MEMBER SALT LAKE STOCK AND MINING EXCHANGE

GEO. BAGLIN

INVESTMENT SECURITIES, METAL MINES AND
GENERAL BROKERAGE

404 NEWHOUSE BLDG.

P. O. BOX 525

SALT LAKE CITY, UTAH November 24, 1922

Analysis of Facts and History of the Walker Mining Company, Subsidiary of the Anaconda Copper Mining Company

GREAT mines are found and developed so seldom that as a general rule their discovery and beginning of production is heralded by widespread publicity. To every rule, however, there are exceptions. One of the most remarkable exceptions of recent years is the Walker mine. This property notwithstanding its extraordinary promise, its favorable position with regard to transportation, and the possession of all the natural endowments that go to make an exceptional mine, has been heard of by few people in California, in Plumas county of which state it is situated, or in Utah, where reside a great many of its largest stockholders, or in Montana, where the Anaconda Copper Mining company, which directs its destinies, began first activities.

There are several reasons why a mine of the size and promise of the Walker has not received the publicity which its wonderful natural resources deserve. In the first place, the Anaconda Copper Mining company, which owns control, is more interested in accomplishments than in publicity. A mine has had to be developed in which a comparatively few of the public were interested. Since the Anaconda has practically unlimited finances at its command, talking about the favorable conditions prevailing at the Walker mine has not been necessary to interest the investing public. This feeling has been shared by large minority stockholders as well as by officials of the company.

However, recent developments have been so favorable that it is felt that before long the Anaconda company will acknowledge that the Walker mine is one of its big assets, not alone because of the num-

ber of shares held, but because of the revenue which will be derived from the smelting of Walker ores by the International Smelting company, a subsidiary organization of the Montana mining corporation.

So it is that a property, which has in one of six known orebodies \$30,000,000 of mineral blocked out; which should rapidly develop into one of the largest and lowest cost producers in the world; and which should be active on a large scale for generations has received little or no publicity in technical journals or newspapers.

In laying before the public the following analysis and history of facts pertaining to the Walker Mining company, I have two distinct but closely related purposes: To call attention of investors to the exceptional merits of this stock so that advantage may be taken in time of an unusual opportunity and at the same time to help myself to a bigger business—a business that will bring profit and satisfaction both to myself and my clients.

Before discussing the outlook of the Walker Mining company, it should be stated that a property must have two qualifications before it can become a great mine. First, it must have mineralization of great persistence and of sufficient richness to make exploitation profitable; Second, the management directing the development of an estate's natural resources must be both honest and efficient. Many a fine organization has been wrecked in an attempt to develop a mine which promised well but did not live up to expectations. Many a great mineral deposit has been exploited with disastrous results to sharehold-

NOV 20 1922

Frederick Laist

ers because of inefficient or dishonest management.

In the case of the Walker property, it may be most emphatically stated that both requisites, good management and great ore reserves, exist. If the Anaconda company were not organized and managed to the highest degree of efficiency, it is hardly possible that the corporation would have grown from one of limited capital to one that has paid since its organization in 1901 about \$170,000,000 in dividends, besides acquiring the American Brass company and buying, equipping and developing great properties like the Andes Copper, the Walker and other holdings of vast possibilities. Were not the management of the Anaconda Copper Mining company most capable, it would be scarcely practical for this organization to operate mines, railroads, smelters, sawmills, fertilizer factories and the great plants of the American Brass company, the largest corporation of its kind in the world. To carry on such manifold activities in this day of keen competition and rapid progress implies the highest degree of efficiency. That the Walker Mining company has this type of management is as great an asset as its vast ore reserves.

Fully as indisputable are the facts concerning the mineral resources of the company. In the report of the Anaconda company for 1918 are recorded the following conservative, unimaginative but startling statements concerning the ore reserves of the Walker mine at that date:

"Exploration of the property to the depth of 346 feet has been accomplished by two shafts. Drifts from these shafts have opened up a body of ore approximately 800 feet in length averaging 16 feet in width and a grade of about 4 per cent copper. Recent developments by means of diamond drill holes indicate an additional length of vein approximately 900 feet. There is considerable amount of unexplored territory."

Report of the Anaconda company for 1921 contains the following statement concerning the tonnage developed.

"Ore reserves at the end of 1921 were estimated at 900,000 tons, averaging 4.2 per cent copper. There are on hand at the mill more than 7,600 tons of concentrates assaying 19.76 per cent copper, 7.46 ounces of silver per ton and .19 ounces of gold per ton."

It should be noted that no mention is made in the Anaconda reports of the gold-silver content of the ore which is nearly enough to pay all mining and and milling costs. How conservative the Anaconda statements are may be judged when it is known that during the past five months, milling ores have run from 5 to 7.5 per cent copper, with \$5 in gold and silver. Shipping ores have averaged in the same period from ten to twelve per cent copper with excellent gold-silver values. Probably a clearer comprehension of the mine's mineral resources can be had when it is known that **from development work alone**, during the past six years, ores of a gross value ex-

ceeding \$2,225,000 have been produced and marketed. It can be truly stated that the Walker is today one of the highest grade copper mines now active.

Another striking fact in connection with the ore bodies of the Walker mine is that no hoisting of ore or waste nor no pumping is or should be necessary for many years. The deposits lie in such a position that every pound of ore can be handled by gravity. Contrast this condition with that pertaining in Butte where all ore and waste has to be hoisted 2000 to 4000 feet and tremendous volumes of water must be pumped to the surface.

In order that full advantage may be taken of physical conditions, the company has run a long tunnel which cuts the lode at a depth of 1000 feet on its dip. Ore stoped in the upper levels is dropped into chutes, loaded into trains of cars hauled by electrically driven locomotives, and trammed to the mill at the portal of the adit. Shipping ore is conveyed to the railroad station, Spring Garden, on the main line of the Western Pacific, 8.2 miles distant by one of the best equipped and constructed aerial tramways in the country.

Nor has the downward limit of the ore been reached on the main tunnel level. At this depth, the mineralization is as extensive and rich as on the upper levels of the mine. Because of the great size, the high-grade values of the deposits, and the simplicity with which mining operations can be conducted, it is doubtful whether there are many properties in the world that can compete with Walker mine in the matter of production costs.

Probably the most complete and interesting statement ever made concerning the financial status of the company and the physical condition of the mine is contained in an interview with President J. R. Walker in the Salt Lake Tribune of November 12, 1922, from which are quoted the most pertinent paragraphs as follows:

WALKER MINE FUTURE BRIGHT

President of Company Makes Statement Concerning Plumas Property.

Plans for Enlargement of Old Mill and Building of New Plant Announced.

Complete satisfaction was expressed yesterday with the present outlook of the Walker Mining company by President J. R. Walker. In his opinion, the Plumas county, California, property could scarcely have a brighter outlook. Development work is constantly adding to the already vast ore bodies, the financial position of the company strengthened by the gratifying profits which are being netted as a result of steady production, and plans of the utmost importance for the welfare of the company outlined. To increase the income of the company in the shortest time possible, steps are being taken to aug-

ment the capacity of the small test mill so that it will be capable of handling 300 tons daily.

"In addition to treating 300 tons daily of ore," said President Walker in discussing yesterday plans of the company for the immediate future, "the company will ship 100 tons daily of crude ore, averaging from 10 to 12 per cent copper. The above output will produce in round numbers \$3,000,000 annually, with gold, silver and copper estimated at the present market values. Out of this gross output, the International Smelting company will receive for treating the ore, in round numbers, 29 per cent, or \$870,000; the railroad company in freights on concentrates and crude ore, 9 per cent, or \$270,000 per year, leaving for the company 62 per cent, or an annual income of \$1,860,000."

From this annual gross income that the company receives, Mr. Walker explained, must be deducted \$45,000 monthly, which will be adequate to pay all mining, milling and other charges. For disbursement, over \$1 a share will remain on the company's capitalization of 1,250,000 shares. While the relatively small amount estimated as necessary for operation may seem out of proportion as compared to the large net profit, he said, it must be remembered that the Walker mine is probably one of the lowest-cost producers in the country. The relatively high-grade copper, as well as the gold and silver content of the ore, the fact that for years not a pound of waste or mineral need be hoisted and no pumping done, and that the company has millions of feet of timber on its property suitable for all mine and construction uses, will make it practical for the company to produce copper under 8 cents and nearer 7 cents on a daily output of 400 tons.

Mine in Good Shape.

"The physical condition of the mine was never better," Mr. Walker stated. "In one deposit, a body of ore 800 feet long, 1000 feet on its dip, and an average width of thirty feet has been blocked out, in which, figuring ten cubic feet to the ton and copper, silver and gold at present market prices, there are over \$30,000,000.

"Moreover, there are five other known ore bodies in the mine. On the 300 level to the north of the tonnage already blocked out we have run over 900 feet through an ore body. This deposit has also been diamond drilled. The 600-foot level, which is next to the bottom level of the mine, is within 200 feet of cutting this ore body at depth. As the company owns nearly four miles of this great lode or zone, it is probable that many other ore bodies will be developed."

When asked regarding the company's present financial outlook, President Walker said that if the output is maintained at the rate of 300 tons of mill and 100 tons of crude ore daily, it will require but very little more than a year to pay off the indebtedness.

"In my opinion, new financing will not be neces-

sary if plans are carried out as now outlined," he explained. "All of the present indebtedness of the company is carried at 6 per cent interest by the Anaconda Copper company, which owns 50.4 per cent of the Walker Mining company's stock, and will not be due until January 1, 1929.

"I believe that the minority stockholders should be congratulated on having a highly efficient organization like the Anaconda Mining company in charge of development and exploitation of the property. The conduct of the affairs of the Walker Mining company by the Anaconda company has always been for the best interests of all the stockholders. Minority stockholders have always had a square deal.

"For the protection and gratification of minority stockholders I might say that in the one ore body in the Walker mine which is blocked out, not taking into account the huge reserves in the five other known ore bodies, there are more dollars gross than the combined capital, surplus and undivided profits of all the national, the savings, and the state banks and trust companies in the state of Utah."

As an indication of what the future holds for the property, it is announced that the company has already cut lumber for erection of a large, new milling plant, to be begun just as soon as the weather permits next spring. Inasmuch as the company already has one of the best tramways in the country, capable of transporting 350 tons a day from the mine to the Western Pacific loading station at Spring Garden, nine miles distant, with the erection of the new mill the Walker mine will possess a surface plant and underground equipment of the highest efficiency.

To me, the salient facts of President Walker's clear-cut and comprehensive statement are as follows: Out of the \$30,000,000 contained in one of six great orebodies, 29 per cent goes to the International Smelting company for reduction costs, 9 per cent to the railroads for freight; 18 per cent for mine, milling and overhead charges. Totalling these items, we have an aggregate of 56 per cent which represents the cost of producing the metal; 44 per cent represents the net profit, which, figured on \$30,000,000, leaves \$12,500,000 or \$10 per share for payment of dividends on a stock which is selling in small lots around \$4 per share on the Salt Lake Stock and Mining Exchange.

Furthermore, this estimate does not take into account the fact that there are five other known ore bodies which may prove to be as large as the one blocked out. The individual investor may best estimate for himself the speculative value of a mine which in one of the six ore bodies lying along an ore zone traversing the estate four miles, there is a deposit such as the one described above.

At the present rate of production, 300 tons of milling and 100 tons of shipping ore daily, the com-

HISTORY OF THE WALKER MINING COMPANY

pany is producing 18,980,000 pounds of copper per year, which means at present metal prices the annual earning of a gross income of \$3,000,000, or a net profit of \$1,320,000 or over \$1 per share.

COMPARATIVE STATEMENT SHOWING PRESENT PRODUCTION AND EARNINGS ON WALKER MINING COMPANY WITH PRESENT EQUIPMENT ONLY.

	Annual Tons Crude	Annual Lbs. Copper
300 tons daily mill ore—80 tons concentrates	109,500	11,680,000
100 tons daily shipping ore, 10% Cu.	36,500	7,300,000
	146,000	18,980,000
Annual production of copper—18,980,000 lbs. @ .1377c		\$ 2,613,546
Gold and silver content, underestimated		386,454
		\$ 3,000,000

EXPENSES, CHARGES AND COSTS AGAINST PRODUCTION

	Lbs. Copper	Annual Expense	Cost per Ton Crude	Cost lb. Copper
Smelter	5,504,200—29%	\$ 870,000	\$ 5.96	.04c
Railroad	1,708,200—9%	270,000	1.84	.0124c
Mine, Milling and Overhead	3,416,400—18%	540,000	3.70	.0247c
Total Costs	10,628,800—56%	1,680,000	\$11.50	.0771c
NET PROFIT	8,351,200—44%	1,320,000	\$ 9.04	.0606c
	18,980,000	\$3,000,000	\$20.54	.1377c

In connection with these figures, it must be remembered that if the company builds a new mill as planned next spring, both the output and the profit will be greatly increased. Cognizance should also be taken of the facts that the one ore body blocked out contains enough ore to run the present 300-ton plant and 100 tons shipping ore for twelve years and that every cent advance in the price of copper above the present settlement quotation of .1377c means the annual addition of \$189,000 to the profits of the company.

Out of 1,250,000 shares of the company—630,000 of which were taken up by the Anaconda Copper Mining company when it exercised its option October 1, 1918. Approximately 400,000 shares are owned by Walker Brothers, leaving but 220,000 shares of floating stock left with the public, most of which is held in large blocks by shrewd investors, a number of whom are too familiar with the possibilities of the mine to be induced to sell at any figure.

When it is taken into account that the Walker mine is ideally situated with regard to transportation; that on the property there are millions of feet of timber; that water in abundance for all milling and domestic purposes is available; that the mine is equipped with the most modern buildings and labor-saving machinery; that the mill is making a recov-

ery of 96 per cent, a record not exceeded by any other metallurgical plant in the country; that the management of the mine is as efficient as can be found any place in the world; that the stock, outside of its great speculative value, has a proven dividend potentiality of at least \$10 per share, purchase of Walker, to put it most conservatively, seems to me the best investment afforded in the entire range of mining or industrial issues.

The stock of the Walker Mining company is listed only on the SALT LAKE STOCK & MINING EXCHANGE, and is quoted at the present time around \$4 per share.

My business is that of a stockbroker, and in sending out this letter I am acting entirely in the interest of the investing public, realizing that in getting the public interested in this stock, which is the most meritorious issue that has ever been called to their attention, I am at the same time helping myself to bigger business.

I have no hesitancy in advising the public to buy this stock, and can assure all investors who see fit to favor me with their orders that they will receive prompt and efficient service.

GEORGE BAGLIN.

6/11

4

Anaconda Copper Mining Company

GEOLOGICAL DEPARTMENT

REPORT

of

WALKER MINING COMPANY

at

THE SPECIAL STOCKHOLDERS' MEETING

Held

At Phoenix, Arizona

May 3, 1923

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Preliminary Annual

REPORT

of

WALKER MINING COMPANY

at

The Special Stockholders' Meeting

Held

At Phoenix, Arizona

May 3, 1925.

WALKER MINING COMPANY

To The Stockholders:

In view of the proposed increase in capitalization of the Walker Mining Company for the purpose of building a new mill, and for adding to the mine and camp equipment, it is fitting that you should be given a short review of the operations of the Company for the last few years, and the reasons that have prompted your directors to ask for this expenditure at this time.

At the beginning of the year 1918, the Walker Mine was developed by a two compartment vertical shaft having a total depth of 220 feet. There were three levels, one at 55 feet, one at 125 feet and the lowest one at 210 feet depth. The 55 foot level was developed by 340 feet of drifting on the vein. The 125 foot level had 360 feet of drifts and a crosscut tunnel connecting with the surface. On the 210 foot level there were approximately 1200 feet of drifts and crosscuts and from this a winze 80 feet deep was sunk. The total depth attained in the mine was 390 feet.

The tonnage of ore blocked out at this date was 40,000 tons and a further amount of probable ore of 40,000 tons, making a total of 80,000 tons that had an assay value of copper 3.32%, silver 1.35 oz., gold .02 oz. per ton.

The ore all had to be hoisted and transferred by aerial tram to the mill situated about 5000 feet away and 835 feet lower than the collar of the shaft.

The mill had a capacity of 100 tons and the con-

concentrates were hauled 19 miles to Gulling, the nearest available shipping point. The average cost of this hauling was \$10.00 per ton.

Wood was used to generate power both at the mine and mill plant, and the cost for power was excessive, and amounted to 50¢ per ton for mining and 92¢ per ton for milling.

Since 1918 there was a period from October, 1920, to May, 1922, when mining and milling operations were suspended, due to the low price of copper. Development work in the mine on a small scale was steadily prosecuted during this time. At the present, total development is shown as follows:

The third level has been extended and opened up. It now has 1500 feet of drifts along the vein and 185 feet of crosscuts.

Below this, four new levels have been driven, opening up and developing an ore body to the tunnel level. This main tunnel is 855 feet vertically below the collar of shaft and enters and explores the vein at a point approximately 960 feet below its apex. It was started as a crosscut from a point near the mill, and on a level with the ore bins. At about 4000 feet from its portal, it enters and follows the vein for a distance of 1500 feet.

Four raises from this tunnel level connect the levels above and develop, block out and prove the ore body.

In all there are more than 15,000 feet of development by drifts and crosscuts.

The tonnage shown by development is conservatively placed at more than 900,000 tons of ore, with an average value of 4.20% copper and \$2.50 in gold and silver. The ore body is now opened up and ready for economical mining. At the present time there is a reserve of broken ore of more than 91,000 tons in the stopes.

A power line has been built and electric power is now installed throughout the mine and mill. Two electric trolley locomotives with the necessary cars and a track with 35# steel rails have been added to the main haulage equipment.

The completion of the tunnel level permitted the removal of the mine camp and its consolidation with the mill camp. At the camp we now have ore bins of 600 tons capacity, well equipped and well lighted shops, mine office, commissary, cook house, two bunk houses, sixteen modern cottages, and a well equipped hospital.

A tailings dam large enough for the storage of

mill tailings for several years has been built.

An aerial tramway 8.2 miles in length from the mill to Spring Garden, a station on the Western Pacific, was completed in 1920, and has been in operation since. In the six months ending 1922, the tramway handled approximately 20,000 tons of concentrates and crude ore successfully and in addition 500 tons of back freight.

The actual costs per ton for tramming to Spring Garden for the nine months ending February 28, 1923, were as follows:

June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
\$.70	\$.82	\$.90	\$1.17	\$.81	\$1.18	\$1.81	\$1.13	\$1.01

or an approximate cost of \$1.00 per ton. When it is recalled that the cost of hauling by team prior to this installation was \$10.00 per ton, the saving is readily seen.

A reduction in freight rates has been effected during the past year which has resulted in a material saving.

Upon the tonnage shipped since this new rate went into effect, the saving in freight over the old rates has been more than \$70,000.00.

From a rating of 100 tons per 24 hours in 1918, the mill capacity has been increased to somewhat more than 300 tons per day.

Below is a table showing the results of mill operation during the ten months ending February 28, 1923:

	<u>Days</u>	<u>Tons</u>	<u>Heads</u>	<u>Tails</u>	<u>Concs.</u>	<u>Recovery</u>	<u>Ratio of</u> <u>Concn</u>	<u>Lbs. Cu</u> <u>Produced</u>	<u>Cost</u> <u>Per Lb.</u> <u>FOB New York</u>
May, 1922	9	1883	7.96	0.47	23.565	95.55	3.104	202,346	
June	30	4575	6.57	0.582	21.346	95.84	3.475	576,625	
July	31	5224	5.65	0.336	21.95	95.49	4.067	671,897	\$.0953
Aug.	31	5572	5.65	0.336	21.00	95.58	3.94	687,532	.0882
Sept.	30	4856	5.784	0.345	21.12	95.565	3.848	537,967	.0985
Oct.	31	5308	5.18	0.315	20.512	95.421	4.171	524,948	.1055
Nov.	30	4856	4.684	0.288	19.985	95.337	4.492	453,486	.13547
Dec.	31	5118	4.935	0.257	20.555	95.93	4.36	483,415	.11067
Jan. 1923	31	5390	4.555	0.355	22.622	95.86	5.439	450,603	.11006
Feb.	28	5136	4.204	0.198	21.36	96.225	5.433	404,169	.10022

The cost of repairs has been abnormally high and it has been impossible to keep the mill running steadily for any extended period. Shutdowns have been frequent amounting to as much as one-sixth of the total days in any one month, resulting in high milling costs. Milling costs for the nine months ending February, 1923, were as follows:

Milling per ton ore	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
	\$2.12	\$1.53	\$2.16	\$2.03	\$2.46	\$4.06	\$3.06	\$2.95	\$2.86

This lack of efficiency has been due largely to insecure foundations and in part to faulty design and inadaptability to the needs of the ore. However, it was thought inexpedient to

replace it with a new mill until such time as the mine showed sufficient ore in sight to justify the expenditure. Your directors believe that such a time has come.

With the ore in sight, - that already broken in the stopes and that ready to break - besides the probable new tonnages that may be developed, the pressing need is for an up-to-date efficient mill capable of a greatly increased tonnage.

This new mill will enable the Company not only to reduce its milling costs, with a consequent increase in profits, but will place it in a position to reduce its indebtedness in the shortest possible time, thus eliminating the payment of interest. It will hasten the time when dividends will be realized.

The mining costs have been high, due to the fact that the last few years have been a period of development. Actual mining costs per ton ore for the nine months ending February, 1923, were as follows:

Mining	per ton	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
ore -	-\$3.98	\$4.66	\$5.03	\$4.15	\$3.68	\$5.49	\$2.83	\$2.33	\$2.13	

A large portion of the ore produced and milled has been taken from the drifts, raises and crosscuts run primarily for the purpose of exploration and development. In the future, ore will be largely produced by stoping, and the cost per ton of mining will be much reduced.

With mining costs lower, with an efficient mill to reduce the ore to concentrates at probably one-half the present cost of concentrating, with a tramway capable of delivering from mill to the railroad, the cost of laying down a ton of concentrates at the shipping point will be reduced to a minimum. To do this it will be necessary to have a new mill, and make mine and camp improvements. Below is the estimated cost of these improvements:

Crushing Plant and Concentrator	\$268,942.00
Moving boilers and installing heating plant	6,000.00
Compressor Plant	35,000.00
Additional Transformers and Steel Transformer House	10,000.00
New Shop and Equipment	25,000.00
Addition to Warehouse, moving oil tanks, etc.	8,000.00
New Bunk House	12,000.00
Twelve New Three Room Cottages	12,000.00
New fire hydrants and changes in lines	6,000.00
Total - - -	\$382,942.00

OTHER DEVELOPMENT:

In addition to the ore body now being mined, there is a shoot to the north in the same vein which has been developed on the third level by a drift for a distance of about 800 feet. In this interval its grade exceeds 5% in two spots for a total length of about 100 feet, while for a distance of 500 feet the average copper content is 2%, the

remaining portion being lower than this. A north drift on the sixth level recently penetrated this shoot, showing across a 50-foot width a $1\frac{1}{2}$ grade that corresponds to a similar grade on the third level immediately above this point.

While the third level showing does not give much promise of rich ore in this shoot, there is the possibility that it will come in below this level as was the case in the main shoot.

Wherever it has been developed to the south, the main ore shoot has become lean and remains so for a distance of 800 to 1000 feet. However, the southern most point on the tunnel level indicates an improvement in grade south of the lean material and points to the possibility of the existence of another ore body south of the present workings.

WALKER MINING COMPANY

Balance Sheet

December 31, 1922

ASSETS

Mines and Mining Claims	\$1,331,924.98	
Plant and Equipment	1,021,813.91	
Supplies	127,269.66	
Ore Inventories	177,421.66	
Expenses Paid in Advance	3,556.51	
Accounts Receivable	19,433.64	
Cash	29,674.20	\$2,711,094.56

LIABILITIES

Capital Stock	\$1,350,000.00	
Notes Payable	833,086.85	
Accounts Payable	841,419.58	
Reserve for Depreciation	40,698.75	
Reserve for Depletion	413,081.87	
Profit and Loss	768,192.49	\$2,711,094.56

WALKER MINING COMPANY

Detail of Plant/Equipment Accounts
December 31, 1922

Buildings and Improvements	\$126,508.03
Mine Machinery and Equipment	51,212.36
RockHouse Machinery and Equipment	12,974.59
Mill - Machinery, etc.	
Buildings	41,000.00
Machinery, etc.	118,217.46
Electric Power Equipment	18,877.14
Saw Mill Equipment	7,503.37
Tunnel and Equipment	343,453.79
Spring Garden Tramway	211,086.03
Railroad Spur at Spring Garden	2,133.39
Railway Survey	2,176.70
Livestock and Stable Equipment	2,554.56
Office Equipment	430.02
Assay Office Equipment	188.11
Hospital Equipment	1,889.05
Dam	37,858.60
Equipment - Plant Facilities for Employees	5,421.29
Aerial Tramway - Mine to Mill	16,520.31
OreBins	2,137.93
Flume	1,534.10
	<hr/>
	\$1,003,676.83
Electric Power Pole Line - To be refunded by the Great Western Power Company by credits on power purchased	
	<hr/>
	18,137.08
	<hr/>
	\$1,021,813.91

WALKER MINING COMPANY - YEAR 1923
STATEMENT OF AMOUNTS PAID TO AFFILIATED COMPANIES

<u>International Smelting Company</u>	<u>Account Liability of year 1922</u>	<u>Year 1923</u>
Telephone and Telegraph Service	15.02	482.12
Freight, Express and Postage	24.66	725.58
Salaries and Utah Office's Expenses	600.00	9,835.20
Invoices of Purchasing Department, New York		4,694.12
Expenses, J. O. Elton		1,126.58
Freight, Insurance and Handling Charges on Steel Grinding Balls		2,818.78
Expenses - J. B. Whitehill		118.18
Labor, Supplies and Expenses on Box Sampler and Lime Feeder		313.64
Capital Stock Tax		508.00
X Cake, Oil, etc.		613.03
Expenses, W. C. Page		95.08
Miscellaneous Items	9.09	898.45
A. C. M. Co., Purch. Dept., N. Y. invoices, as follows:		
12/4/22	227.28	
12/8/22	5.32	
12/8/22	<u>179.34</u>	
	<u>411.94</u>	
	<u>1,060.71</u>	
Advances, a/c Purchase of Ore and Concentrates		27,000.00
Interest		49,985.20
Penalty for Delay in Shipment of Ore & Concentrates		<u>20,983.12</u>
		120,197.08
Anaconda Copper Mining Company, General Office, Butte	995.65	15,507.76
Anaconda Copper Mining Company, Purch. Dept., Butte	2,134.93	249,537.61

STATEMENT OF AMOUNTS SHOWN AS LIABILITIES TO AFFILIATED COMPANIES

<u>International Smelting Company</u>		
For		
New York Purchasing Department Expense, 1923		2,061.78
Freight, etc. on Steel Grinding Balls		639.00
Salaries and Utah Office's Expenses		1,441.45
Stationery and Printing		39.92
Freight, Express and Postage		119.35
Telephone and Telegraph Service		45.56
Labor, Supplies and Expenses on Box Sampler and Lime Feeder		45.29
Miscellaneous items		94.63
A. C. M. Co., Purch. Dept., New York invoices as follows:		
12/ 3/23	1.42	
12/ 5/23	395.17	
12/ 5/23	13.31	
12/24/23	2.27	
12/29/23	<u>23.09</u>	
Penalty for Delay in Shipment of Ore and Concentrates (Accrued)		435.26
Interest (Accrued)		2,535.10
		<u>8,305.51</u>
		15,762.85
Anaconda Copper Mining Company, Purchasing Department, Butte		18,982.82
Anaconda Copper Mining Company, General Office, Butte		465.54

STATEMENT OF ITEMS BILLED TO AFFILIATED COMPANIES

International Smelting Company	1,387.30
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WALKER MINING COMPANY

Spring Garden, Calif.

Anaconda's Walker Mine and Mill

By

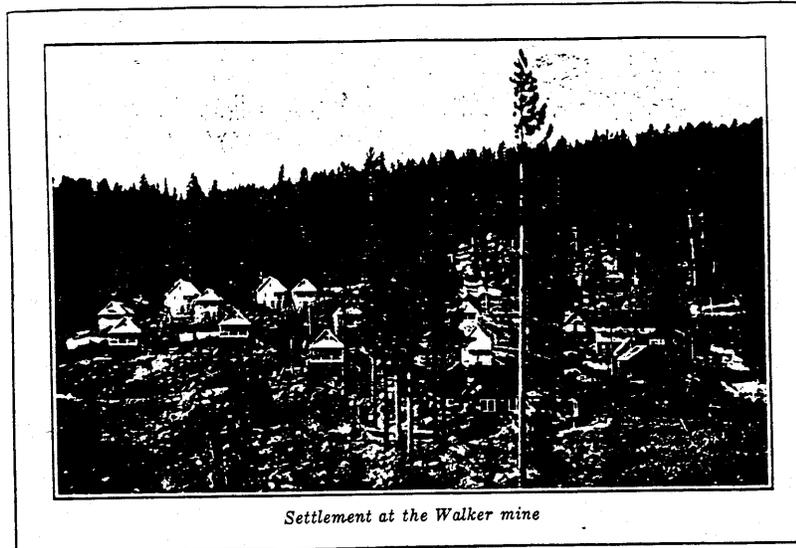
George J. Young

E. & M. S.
May 3, 1924

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WITHOUT THE APPROVAL OF THE
BUREAU OF MINE REVENUE
AND TAXATION
DEPARTMENT OF THE INTERIOR
WASHINGTON, D. C.



Settlement at the Walker mine

1924
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Anaconda's Walker Mine and Mill

A Small but Unusually Well-Equipped Copper Property, in California, Using Shrinkage Stopping and Flotation Concentration

By George J. Young
Associate Editor

THE WALKER COPPER MINE is in Plumas County, Calif., 8.4 miles northeasterly from Spring Garden, which is on the line of the Western Pacific Railroad. It can be reached by wagon road from Portola, 22 miles, or from Gulling, 19 miles distant. From the latter point heavy freight is hauled to the mine. A wire-rope tramway connects the mine with Spring Garden. Over this, concentrates are transported to the railroad and supplies are brought to the mine. During the winter months the mine is cut off from road transportation by heavy snow. The only communication during winter is by way of the wire-rope tramway. The comparative isolation of the mine during part of the year has interposed conditions upon operation and living that are unusual in California. The surrounding region is mountainous and wooded.

MINING CONDITIONS FAVORABLE

The ore deposit is distinctly different from the Engels copper deposit, which is in the same region. The Walker deposit is typically a vein between fairly definite walls, it strikes N. 15 deg. W. and dips 60 to 65 deg. to the northeast. Both walls are gneiss. The ore consists of chalcopyrite associated with pyrite and pyrrotite in a gangue of quartz. Accessory minerals are barite, garnet and magnetite. The vein is on the hanging-wall side of a granite gneiss contact and parallels the contact at a distance of several hundred feet. A small quartz stringer carrying chalcopyrite occurs at

the contact. The wall rocks and ore are compact hard rocks that stand well in open stopes. Comparatively little water occurs in the fissure. The mining conditions are especially favorable. The proportion of ore and gangue varies, and bands of ore interlace the vein. The volume relation is 10 cu.ft. of ore in place to one ton. Gold and silver occur associated with the copper and are recovered in part. The recovery ratios, as figured from a statement of the content of a concentrate lot, approximate one ounce of silver to 52 lb. of copper and one ounce of gold to 2,081 lb. of copper. Gold and silver are recovered in the proportion of one ounce of gold to 39 oz. of silver. The average copper content of the ore ranges between three and five per cent, although in places the ore is much richer. The approximate gold and silver recovery is somewhat over a dollar per ton.

The orebody at present being worked is about 750 ft. long and varies in width from 15 to 50 ft. It extends above the adit level a vertical distance of 590 ft. to the third level. A considerable proportion of ore has been stoped above the third level. Several additional orebodies have been discovered but not worked. The mine is opened by an adit which is called the 700 level.

During the mine's early history the oreshoot now being mined was developed by two shafts at the top of the hill above the mine. The adit was driven from the mill site a distance of 5,200 ft. and connects with one of the shafts, of which both are used for ventila-

MIN 000014065

tion. This shaft is provided with a 60-hp. single-drum, electrically driven hoist at the third level and an auxiliary hoist at the surface, and is used for access to the workings above the adit level. The two levels contiguous to the adit level are 140 ft. apart, and the succeeding two levels 170 ft. apart. The orebody below the adit level has not been developed. Drifts are 5x7 ft. in section; the adit is 6x8 ft. in timbered sections, and the width of the vein along the length of the orebody. The shaft has three 4x5 ft. compartments, one of which is used as a manway and the others for hoisting. It is timbered with 10x10-in. sets, 6 ft. apart. The track gage used throughout the mine is 24 in. The track in the adit is 30-lb. rail.

MODIFIED METHOD OF SHRINKAGE STOPING

Shrinkage stoping is the mining method in use. The deposit is admirably suited to this method, as orebody and walls are hard and the footwall slope is steep. The method was applied in the usual way by stoping above a pillar left to protect the drift and extending the stope to within 25 ft. of the level above. The stopes were finished upon the upper levels and started sequentially on the lower levels. On the completion of the adit the method was modified as shown in Fig. 1. A sublevel was driven 35 ft. above the adit level, and 6x11-ft. ore chutes at 45-ft. intervals were raised on the footwall for a short distance. These branched into two 6x6-ft. raises that terminated in bulldozing chambers connected with the sublevel by short crosscuts. The top of each branch chute is closed by a grizzly

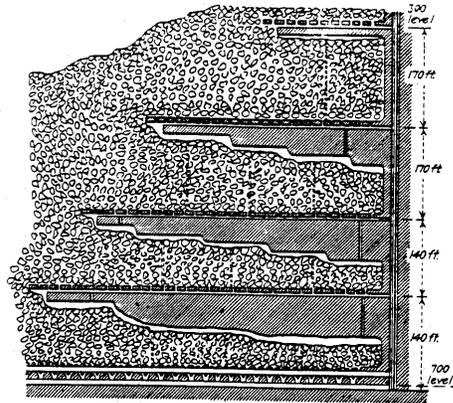


Fig. 2—Sketch showing method of mining pillars

upper levels is drawn from chutes and trammed to transfer chutes which extend to the adit level.

As the mining progresses and the upper stopes are completed the chutes are opened and the ore is allowed to run into the raises; the pillars above and below each level are broken down beginning at the end of the stope farthest from the shaft and retreating to the shaft. The floor pillar is first broken down under the protection of the roof pillar. The roof pillar is next shot down. The method is indicated by a sketch in Fig. 2. The result of this modification was to eliminate the handling by chutes and cars of practically two-thirds of the ore derived from the upper levels, as the broken ore in the stopes formed practically a continuous mass. The draw-off is restricted to the adit level, ex-

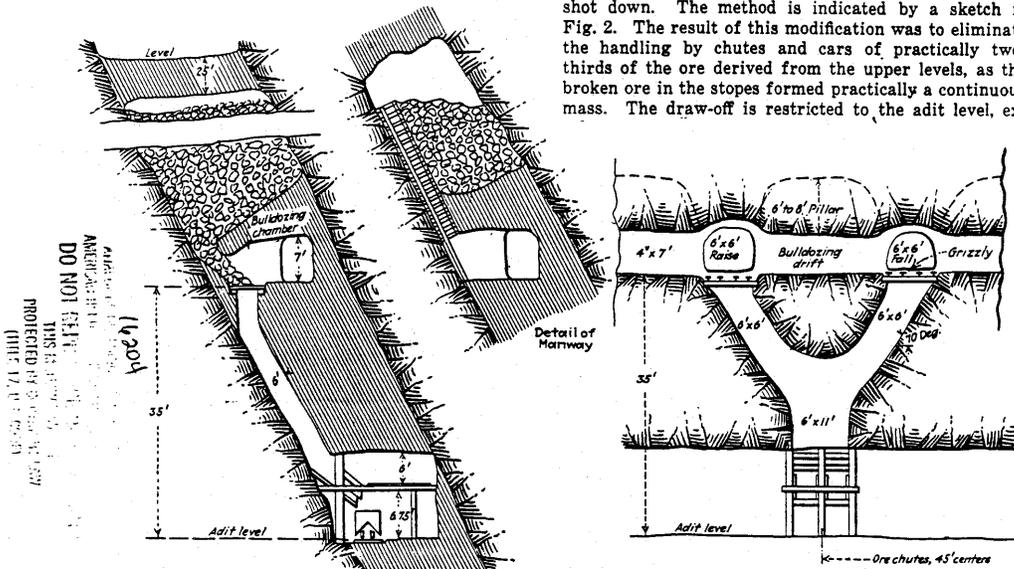


Fig. 1—Details of shrinkage-stope method of mining

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consisting of four 110-lb. rails, 8 ft. in length, spaced 1 ft. apart. Above the grizzlies short raises connect with the stope which is opened out above a pillar 6 to 8 ft. in thickness. The stope is continuous along the orebody. A pillar is left at the shaft. Ore from

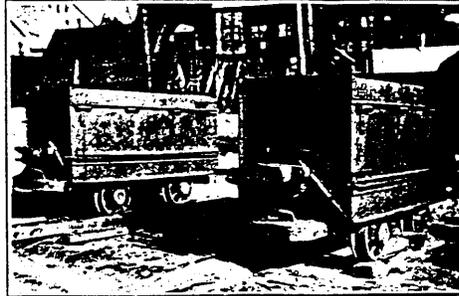
cept for one-third of the ore, which is drawn off and transferred as the individual stopes are extended. Practically all of the bulldozing is confined to the upper level. Such a procedure results in minimum caving. This method might not be applicable to other mines—fo

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stance where the grade of the orebody varied considerably. In this particular instance the conditions are especially favorable, and advantage has been taken of them.

TUGGER HOISTS HANDLE STEEL

Manways are placed on the footwall and are 3x3 ft. in the clear, constructed of 6x6-in. timber cribbing. They are placed on the extreme ends of the orebody and 100 ft. apart between these limits. Alternate manways are provided with a tugger hoist for handling steel, and each is provided with a 1-in. water pipe, a 1.5-in. air pipe and a ladder. Ladders are constructed of 2x6-in. timber, rungs 2x4 in., inset 2 in., the clear width of the rung being 12 in. All ladders used throughout the mine are made to this standard. Steel is hoisted in a



Side-dump ore cars used in the haulage adit

gelatin; the caps are No. 8. No stemming is used. The 60 per cent gelatin is used for cut holes in drifting in tight ground. The 40 per cent is used in stoping. About eight times as much 40 per cent is used as the 60 per cent. Machines in the stopes average about 35 tons per shift. In drifting, 5 ft. of advance is made in two shifts in a 5x7-ft. drift. As an indication of the hardness of the ore, fifteen to seventeen Leyners in use, together with Jackhamers, require about 1,000 pieces of steel per day. About 3,500 tons is broken per week. One Jackhammer man is required for two to four stoping machines.

TRANSPORTATION BY TROLLEY LOCOMOTIVES

All loading chutes are on the footwall side of the haulage drift. Each chute is 3.5 ft. wide in the clear. An arc gate and cross boards are used to control the ore stream. The chute angle is 41 deg. Chutes are constructed of 4-in. plank, the general features being shown in the sketch, Fig. 3. Used ball-mill liners are attached to the chutes to reduce wear. Cars are roller-bearing, gable-bottom, side-dump type, weighing 3,300 lb. and having a capacity of 2.75 tons of ore. They are hauled in trains of eight cars by an 8,400-lb. trolley locomotive. The over-all length of the car is 10 ft. A second locomotive is held in reserve. The ore is dumped upon an inclined grizzly and is received in a 1,600-ton circular steel bin 30 ft. in diameter. Over-size ore is broken by sledges at the grizzlies.

Four electrically driven compressors have been installed. One is a 1,760-cu.ft. Ingersoll-Rand, direct connected to a 250-hp. synchronous motor. The other three are each connected to a 100-hp. motor by short belt drive and each is 620 cu.ft. in capacity. Two air

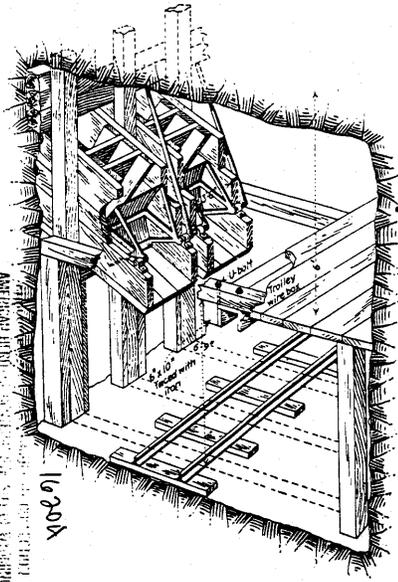


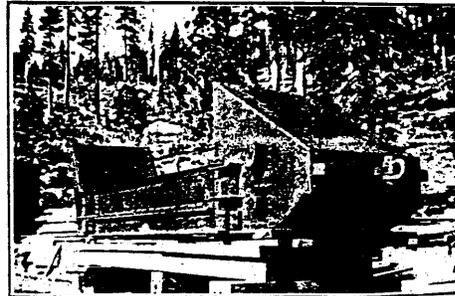
Fig. 3—Loading chutes at adit level

three-sided steel boat which operates between the side of the manway and the ladder.

Three types of drills are used, the 248 Leyner-Ingersoll, DDRW 13 Jackhammer, and the CCWH stoper. The Leyner-Ingersoll is used for raising, drifting and stoping and the Jackhammer for blockholing. Only occasional use is made of the stoper. One-inch hexagonal hollow steel is used for the Leyners and 7/8-in. hexagon for the Jackhamers. Jackhammer steel only is colared. Tappets are used in the Leyners. Starting bits are 2 3/4 in., bit gages are reduced by 1/8 in. steps, and drill changes are 12 in. A cross bit is used on starters and Carr bits on followers. A 1 1/4-in. Carr bit is used for blockholing. A 1/2-in. water and a 1/2-in. air hose, both 5-ply, are standard.

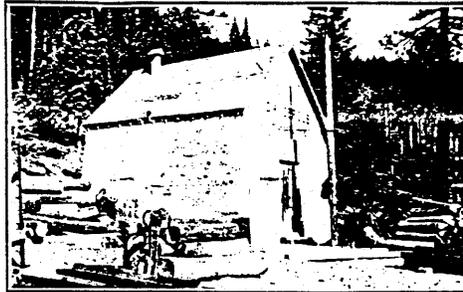
Drills are supported by a 4-in. column with a 3-ft. arm, giving a 7-ft. sweep for one set-up of the column in the stopes. Drill holes in stoping are either horizontal or at a low angle upward and are from 5 to 8 ft. in depth. The powder is 1 1/4 in., 40 and 60 per cent

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 1600



Cage for use in the inclined shaft

receivers connect with a 6-in. air main extending through the adit. A diamond-drill hole in the mine furnishes water for drinking and drilling. A small machine shop, drill and sharpening shop, equipped with



Concrete powder magazine

oil forges and machine sharpeners, a drill-repair shop, and a storehouse are provided close to the portal of the adit. A sawmill is available for the preparation of mine timbers from logs. The substation is at one end of the compressor house. This contains the main switchboard and three 600-kva., self-cooled, oil-insulated transformers that step down from 22,000 volts to 2,300 volts. The switchboard has an auxiliary bus for the compressor room. This provides for the four compressor motors and motor generator sets (75-hp. motor; 50-kw. generators; one a stand-by) supplying direct current to the trolley circuit. The high voltage lines are connected to three F.K. 24, G.E. automatic circuit breakers and oil switches set at 25,000 volts and 300 amperes. The switchboard in addition to the compressor-room circuit provides for the concentrator circuit, the crushing-plant circuit, and a miscellaneous circuit that supplies current to the tramway, to the mine, and for lighting. All panels are protected by time-limit overload relays. A graphic meter gives the total power input.



Apron feeder, feed spout, and end of the ball mill

A new flotation mill was being completed at the time I visited the mine. This will replace a 250-ton mill that has outlived its usefulness but which served the purpose of developing the milling method now in use. The flow sheet of the new mill is given in Fig. 4. The ore was for a time divided into first class and milling ores. The first class ore was shipped along with the concentrates to Tooele, Utah. In the new plant no attempt will be made to pick the ore, but waste will be removed at the belt conveyor leading to the interme-

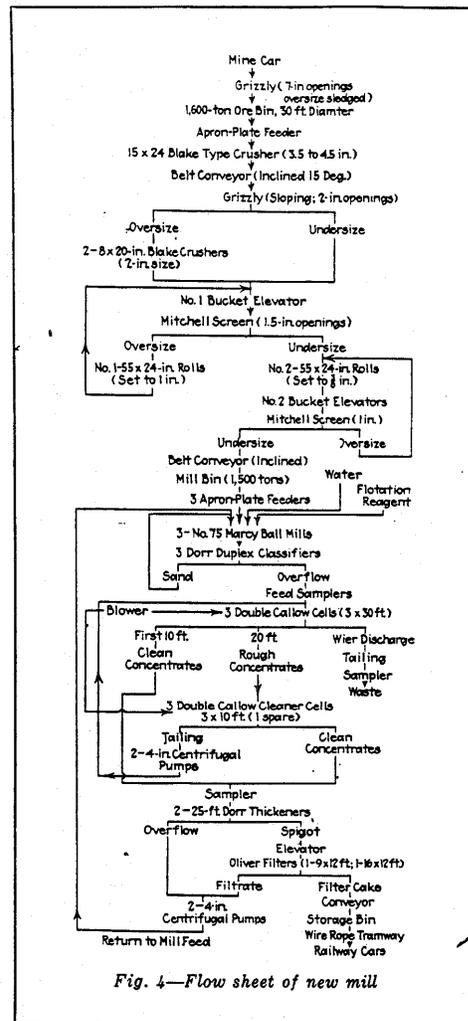


Fig. 4—Flow sheet of new mill

diate crushing plant. The ore consists of closely associated chalcopyrite and pyrite, together with accessory heavy minerals such as pyrrhotite and magnetite, in a quartz gangue in which barite occasionally occurs. The chalcopyrite and pyrite are in coarse irregular masses, sometimes of considerable size. The concentration ratio

ers as such, or as guards. The concentrate is laundered to thickeners and the thickened concentrate is lifted by a bucket elevator to Oliver filters. The overflow liquors are returned by pumps, as is also the flotation froth of the secondary cells. A belt feeder is used for the solid flotation agent and a wheel-type feeder for the pine oil. The flotation cells are constructed of redwood. The mill is arranged in three units, each of which can be operated independently and each of which has a capacity of 250 tons per day. The thickening and flotation division is arranged in two units. Thus, with the exception of the liquor returns and the bucket elevator used for lifting the thickened concentrate to the Oliver filters, the flow of products is by gravity.

Individual motor drives, except in the intermediate crushing division, are used throughout. Large motors are on 2,200-volt circuit and small motors are on 440-volt. A 200-kva. transformer in an underground vault steps the 2,200-volt current to 440 volts. The push-button control panel for the ball-mill motors is in a vault in the retaining wall below the ball-mill floor. Trumble safety switches are used on small motors up to 10 hp. These are in series with G.E. FP-10 oil circuit breakers. A compensating switch is used with overload and low-voltage release on larger motors, except those handled by the push-button panels.

The mill building is of steel-frame construction, with roof pitch one to one. The frame is covered with 1-in. boards nailed to 2x4 strips that are bolted to headers 4 ft. apart. The boards are placed vertically. Corrugated zinc sheets are nailed to the boards on sides and roof on the exposed side.

The wire-rope tramway constructed in 1919 and 1920 has 104 towers, eight tension stations, and two terminals. Its horizontal length is 8.4 miles. The elevation of the mill terminal is 6,100 ft.; that of the Spring Garden terminal 3,970 ft. The highest summit between terminals is 7,460 ft. The traction cable is 18 miles in length and is a 3-in., 6x19 wire rope. The loaded track cable is 1½ in. in diameter, the empty track cable 1 in. in diameter. The buckets are spaced 1,000 ft. apart and carry 800 lb., at a speed of 425 ft. per minute.

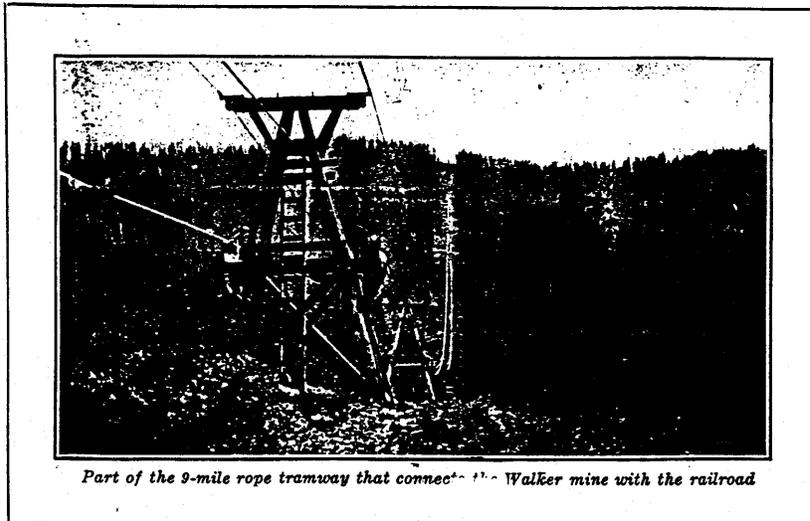
It requires 20 to 40 hp. for starting and 7 to 10 hp. for operation.

At the mine 125 men are employed, including blacksmiths, timber framers, miners, motor men, repair men, and compressor men. The mine is operated on a two-shift basis. The new mill will require twenty-one men for the three shifts. The crushing plant will be operated one shift per day and will require five men. A repair crew of from three to five men is maintained. Separate houses are provided for married men and two rooming houses for the single men.

The control of the property as a whole is in the hands of the Anaconda Copper Mining Co., through its subsidiary, the International Smelting Co. V. A. Hart is general manager; C. W. Page is mill superintendent; J. S. Finlay, general superintendent, and D. Mackenzie, master mechanic. H. N. Geisendorfer is mine foreman. F. C. Torkelson, of the Anaconda Copper Mining Co., superintended the construction of the milling plant, and Julius Kurtz, of the International Smelting Co., of Tooele, installed the electrical equipment. Acknowledgment is gladly made of the assistance of these men in obtaining information for the preparation of this article.

Favorable Prospecting Areas in Northwestern Quebec

A description of the geology of an area in northwestern Quebec including a part of Rouyn township and Dufresnoy and Destor townships is given in a preliminary statement recently issued by Dr. Robert Harvie. The area is considered favorable prospecting ground. These townships are underlain mainly by volcanic tuffs and basic and acid lavas of Keewatin age. Temiskaming conglomerate which in other places has been found to favor the deposition of gold from mineral-bearing solutions occurs in the extreme northwestern part of the area described. A mass of granite of later age is exposed in the vicinity of Dufault Lake and an intrusive body of syenite porphyry was observed a short distance south of the southern boundary of Dufresnoy.



Part of the 9-mile rope tramway that connects the Walker mine with the railroad

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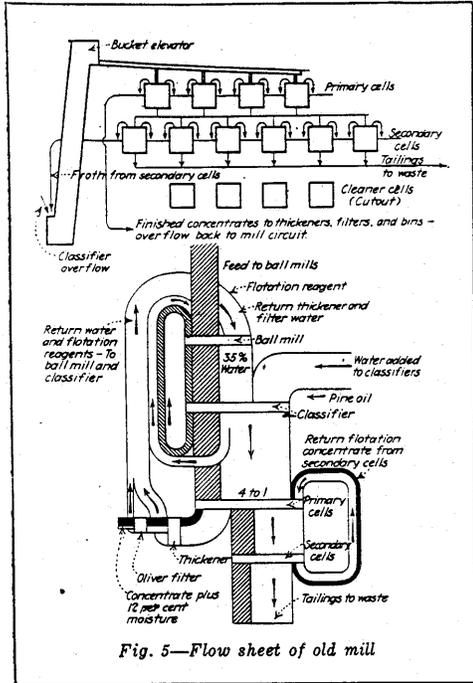


Fig. 5—Flow sheet of old mill

on ore containing 4 per cent copper is six to one, which indicates a comparatively high proportion of heavy minerals. Ore treatment necessitates the separation of the chalcopyrite from part of the pyrite in addition to its separation from the gangue minerals. This has been accomplished by flotation.

The limit size of grinding has been found to be 8 to 12 per cent on a 48-mesh screen, at which size 50 per cent of the ground ore will pass a 200-mesh screen. Present practice is to crush to about 3 to 6 per cent on 48-mesh screen. The operation of the Callow cells determines the degree of crushing. If they "mud up," finer grinding is required, and the ball mills are operated accordingly. The ball mills are operated at 35 per cent moisture in the discharge. The pulp ratio in flotation is four to one. The flotation reagents consist of a mixture of 2 lb. of thiocarbonylid and 15 lb. of lime added in the proportion of 1.2 lb. per ton of ore to the ball-mill feed, and 0.25 lb. pine oil per ton added to the classifier sands. The original practice was to use 2 to 3 bbl. of coal tar, in addition to pine oil, per day. The metallurgical results are excellent, the tailing averaging from 0.1 to 0.2 per cent copper. The concentrates contain 12 per cent moisture as loaded, and when they arrive at Tooele average from 8 to 9 per cent in summer.

CLEANER CELL DISCARDED IN NEW FLOW SHEET

Flotation in the old mill followed customary practice in that the primary Callow cells were used as roughers, the flotation product going to cleaner cells and the tailing to secondary cells, which also sent their flotation product to the cleaners. The tailing from the cleaners was sent to the primary circuit. This was advantageously modified by using the primary cells for a finished

concentrate (the lip discharge is contracted to one-third of the normal length); the secondary cells serve to recover any concentrate left in the tailing. The cleaner cells were cut out. The arrangement is sketched in Fig. 5, which also shows the water-flow arrangements. The plan of treatment has worked out excellently and has resulted in simplifying the flow sheet.

In the new mill long flotation cells of the Callow type are provided. The primary cells are each equipped with ten 3-ft. square wind boxes, 2 in. deep, covered with stitched five-ply canvas. The cleaner cells are each equipped with three wind boxes of the same size. The canvas surface is divided by two strips placed longitudinally. The maximum air pressure will be 5 lb. per sq. in. and the air flow 10 cu.ft. of air per square foot of canvas. Air is supplied by two blowers of the Root type, each driven by a 150-hp. motor. Two smaller blowers, each driven by a 50-hp. motor, will be used for stand-by purposes.

The new mill provides for coarse and fine crushing to approximately $\frac{1}{4}$ -in. size. As the ore is tough and hard and also free from clayey material, no special problems are involved in crushing, screening, or bin storage. No dust-catching appliances are provided, as the ore can be wet sufficiently to keep down any dust. Magnetic appliances are in use to catch tramp iron. The mill bin is constructed of steel beams, with an inner wooden lining on sides and bottom. The apron-plate feeders are driven by a worm gear and variable speed motor; they are placed beneath the ore bin and deliver by a spout to the feed ends of the ball mills. Each of the three ball mills is operated in closed circuit with a Dorr duplex classifier. The ball mills are driven by 150-hp. motors, which are connected by flexible couplings to the pinion shaft. Ball mills and motors are carried on concrete foundations extending above the mill floor. Each ball-mill drive is controlled by a push-button switch. An overhead crawl and chain block are available for handling heavy parts.

The primary Callow cells are at a lower level, and on a still lower level are the cleaner cells. The primary cells can be used as roughers or finishers and the clean-



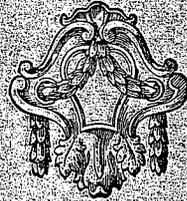
Top of a cribbed manway entering a slope

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SUPT. OF MINES DEPT.

Report of the
**Walker Mining
Company**



SUPT. OF MINES DEPT.

For the Year Ending July 31, 1924

Walker Mining Company

PLUMAS COUNTY, CALIFORNIA

P. O. and Shipping Point
SPRING GARDEN, CALIFORNIA

Operating Office
KEARNS BUILDING, SALT LAKE CITY, UTAH

Stock Returns
1,425,955



(Incorporated under the Laws of the State of Arizona)



CAPITAL STOCK

COMMON—Authorized	1,750,000 shares at \$1.00 per share
Issued	1,749,308 shares at \$1.00 per share
PREFERRED—Authorized and Issued	100,000 shares at \$1.00 per share



Geo Baglin
Directors

J. R. WALKER	C. A. WALKER	J. O. ELTON	J. B. WHITEHILL
B. R. HOWELL	W. R. WALKER	WILLIAM WRAITH	

Officers

J. R. WALKER, *President*
WILLIAM WRAITH, *Vice-President*
J. O. ELTON, *Vice-President*
J. B. WHITEHILL, *Secretary-Treasurer*

Directors' Report

Salt Lake City, Utah, September 12, 1924.

To the Stockholders of the Walker Mining Company.

Your Directors submit the following report for the year ending July 31, 1924.

The Walker Mining Company produced during the year, in ore and concentrates:

Copper, pounds	11,301,159
Silver, ounces	170,561.16
Gold, ounces	6,950.804

The cost of producing copper (not including depletion or Federal taxes, but including interest and depreciation) was 9.394 cents per pound.

The Balance Sheet and income account, certified to by Messrs. Pogson, Peloubet & Company, Certified Public Accountants, are submitted herewith.

For a full account of the operations of your Company you are respectfully referred to the report of the General Manager which follows.

For the Directors

J. B. WHITEHILL,
Secretary-Treasurer.

Manager's Report

Spring Garden, Calif., September 6, 1924.

Mr. J. R. Walker, President
Walker Mining Company,
Salt Lake City, Utah.

Dear Sir:

I beg to submit herewith the annual report of the Walker Mining Company, covering the period of twelve months beginning, August 1, 1923, and ending July 31, 1924.

MINING DEPARTMENT

The tonnage of ores mined during the year was as follows:

Ore, broken	213,183 tons
Ore, produced and trammed	157,900 tons

DEVELOPMENT

Development and exploration in new territory was carried on continuously during the year.

Total advance in underground openings not connected with stoping operations was as follows:

Large drifts and Crosscuts, feet.....	1,066.0
Small drifts and Crosscuts, feet.....	3,533.0
Raises, feet	238.5
Total	4,837.5

Openings driven in connection with stoping operations were as follows:

Chute raises, feet	663.0
Stope raises, feet	575.0
Stope drifts, feet	1,027.5
Total	2,265.5
Total advance in all openings, feet	7,103.0

The exploration work on the seventh level to the south of exit tunnel has disclosed a new ore body that promises to be important. This ore body, so far, is opened only on one dimension and it is impossible at this time to give figures as to the tonnage that may be expected. Mineable ore is exposed in the drift for a distance of approximately 500 feet; 310 feet of this distance was recently sampled showing a width varying from four feet to seven and one-half feet with an average assay of 3.52 per cent copper, 1.49 ounces silver and 0.057 ounces gold.

The fifth level is being driven toward the south with the intent of developing this ore body on that horizon. If the ore body is found to extend to this level it will be an important addition to the ore reserves. In driving the fifth level south a small but promising ore body was cut north of the granite dike. Drifting so far has exposed a length of 80 feet, a stoping width of about ten feet and assaying from 2.5 to 4 per cent copper.

The sixth level was driven toward the north, generally following the vein with the intent of exploring the area beneath a favorable outcrop. Considerable work remains to be done before any definite statement as to grade and tonnage can be made. In the work so far done on this level and the third level, there appears to be approximately 800,000 tons of copper bearing quartz which will be commercial ore when the price of copper improves.

CONCENTRATING

The new concentrator was finished in November, 1923, and has operated steadily since December 1, 1923. The plant is modern in every respect and has operated satisfactorily. The concentrator is operated at a capacity of 600 tons per day.

The mill statistics for the year are as follows:

Ore delivered to the mill, tons.....	155,044	
Average grade of ore milled, per cent copper.....	3.8573	1,196,102 4/11
Average tails, per cent copper.....	0.1768	
Average recovery, per cent.....	96.11	" 493-711
Average grade of concentrate, per cent copper.....	24.3989	
Tonnage of concentrates shipped, tons.....	22,950.98	10,711,509

The contents of concentrates and crude ore shipped during the year were as follows:

Copper, Pounds.....	11,301,159	784231 ÷ 38573
Silver, Ounces.....	170,561.16	= 101654 Tons
Gold, Ounces.....	6,950.804	or 16/07.1 Tons

During the first three months of the year there were shipped to the smelter 894,789 tons of crude ore, the average assay of which was 12.1112 per cent Copper.

COSTS

The costs for the year were as follows:

	Per ton Ore
Breaking ore (including development)	\$1.54452
Cost of producing and tramping ore63723
Cost of milling	1.3443
Cost of tramping concentrates to Spring Garden.....	.1787

Total operating cost per ton of ore with concentrates
delivered at Spring Garden.....\$3.70475

Operations after the starting of the new mill show a total cost per ton of ore with concentrates delivered to Spring Garden of \$3.365.

CONSTRUCTION

A new dormitory and twelve new cottages were completed during the year. The following construction was started and will be finished during the coming year.

A general office, an assay office, and old building formerly a cook house for construction forces is being remodeled as a school house and social center, the stable is being removed for sanitary reasons, and the old concentrator is being torn down and removed.

All old buildings at the upper or mine camp were dismantled as a protection against fire. New fire equipment was added and a general cleanup made of the entire camp.

A new telephone line for use in the operation of the Spring Garden tramway is being installed.

GENERAL

The condition of the entire property is good and prospects are good for adding an important tonnage to the ore reserves during the coming year.

The operations did not suffer from any water shortage, although it has been the dryest year in the history of the state.

Labor has been plentiful, although it has been difficult to secure skilled miners.

Yours truly,

I. L. GRENINGER,

Manager.

Walker Mining Company

BALANCE SHEET—JULY 31, 1924

ASSETS

FIXED:

Mine, Mining Claims and Development	\$1,668,425.64	
Plant and Equipment	1,276,458.51	\$2,944,884.15

CURRENT:

Supplies on hand and expenses prepaid	176,627.40	
Ores and Concentrates on hand—at cost.....	293,632.44	
Accounts Receivable	4,903.46	
Cash	55,719.01	530,882.31
		<u>\$3,475,766.46</u>

LIABILITIES

CAPITAL STOCK:

Common—		
Authorized 1,750,000 shares of \$1.00 each		
Issued 1,749,308 shares	\$1,749,308.00	
Preferred (in the form of notes or obligations to be redeemed at par from Earnings, with interest at 7%)		
Authorized and Issued 100,000 shares of \$1.00 each...	100,000.00	1,849,308.00
		<u>138,883.18</u>
Reserve for Depreciation		1,166,220.09

CURRENT:

Interest and Taxes Accrued	32,377.26	
Accounts and Wages Payable	132,431.14	164,808.40
		<u>23,084.96</u>
Ore Sales Suspense		

SURPLUS ACCOUNT:

Deficit July 31st, 1923	182,074.93	
Net Income for the year ending July 31st, 1924.....	315,536.76	133,461.83
		<u>\$3,475,766.46</u>

We hereby certify that this Balance Sheet shows the financial condition 31st of July, 1924, of Walker Mining Company, and that the accompanying Income Account for the year ending that date is correct as stated.

POGSON, PELOUBET & CO.,
Certified Public Accountants.

New York, 1st September, 1924.

Walker Mining Company

INCOME ACCOUNT YEAR ENDING JULY 31, 1924

Sales of Ore and Concentrates		\$1,187,359.65	
Inventory at end of period		293,632.44	
			<hr/>
			\$1,480,992.09
Mining and Milling	\$ 632,053.18		
Transportation	134,980.99		
Inventory at beginning of period	245,400.51	1,012,434.68	
			<hr/>
Operating Profit			468,557.41
Depreciation	67,377.17		
Interest	78,643.48		
Interest on Preferred Stock	7,000.00	153,020.65	
			<hr/>
Net Income for the Year Ending July 31, 1924.....			\$ 315,536.76

Copper sold 10,074,612 72329 = 331454234
 632053.18
 134980.99
 153020.65

 1251409.55
 48231.93

 1203177.62 = 11.91
 10074612

Oct. 25, 1924

Mr. Wm. Wraith,
25 Broadway,
New York City, N. Y.

Dear Sir:

I returned from Salt Lake this morning where I went over the Walker developments with Elton and Lyon.

I found that some of the developments in the Walker Mine are not being carried out in accordance with the recommendations made by the Geological Department. I merely wish to go on record here that this department cannot be responsible for the manner in which some of the prospecting work has been done.

From memory I can cite two examples I noted on the maps yesterday. The first one, at the south end of the 700 level. The vein became small and it was recommended by the Geological Department that crosscuts be run to the right and left of the face to see whether or not there was any more of the vein outside of the drift. The local management there did not carry out this work as recommended but ran a raise at the face of the drift 50 feet high, then ran the crosscuts from the top of the raise claiming that it would be cheaper than running on the sill. I do not think it needs any argument to convince you that such a procedure was not in accordance with good mining. It added the

cost of the raise and besides had any ore been encountered in these raise crosscuts it would have been necessary to crosscut on the sill to such vein in order to continue its development.

The second example, which work however was not recommended by the Geological Department was the driving of an intermediate over the 700 south drift at an elevation of 30 feet above the 700. This has no value either from a prospecting or mining point of view as far as I am able to determine. Furthermore the development work carried out to develop the vein on this intermediate was not in accordance with good mining in my judgment.

In our endeavor to assist the local management there in laying out his 700 level developments to the north to get into the vein and follow it with a minimum number of twists and turns, Mr. Lyon was told that the Geological Department had nothing to do with developments of that kind as the Geological Department was only concerned in prospecting work.

We wish to give the Walker management as much assistance as possible, we have always done so and hope to continue to the best of our ability. We do not wish however to be held responsible for such work as has been done above the south end of the 700 level on the so-called 30 foot intermediates.

On the 600 feet level at the extreme north end, the prospecting drift or crosscut recently passed through four or five feet of good grade ore. Notwithstanding the expressed desire of the management to follow ore rather than waste this drift was

extended through the ore band for a few feet and was then extended northerly alongside of and parallel to the ore. I understand the drift will be turned further to the left to again get in the vein. I am quite unable to understand why the drift shouldn't have been turned on the ore rather than in the country rock within a few feet of it.

The reason I am writing you is because I am not at all in accord with the manner in which these prospecting operations are being carried out. As far as our end of it is concerned I do not feel that it is good mining and I hope that our department will not be held responsible for it.

Very truly yours,

(Signed) Reno H. Sales

RHS EL
Cc to T.T.Lyon.

Oct. 25, 1924

Mr. Wm. Wraith,
25 Broadway,
New York City, N. Y.

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I found that some of the developments in the Walker Mine are not being carried out in accordance with the recommendations made by the Geological Department. I merely wish to go on record here that this department cannot be responsible for the manner in which some of the prospecting work has been done.

From memory I can cite two examples I noted on the maps yesterday. The first one, at the south end of the 700 level. The vein became small and it was recommended by the Geological Department that crosscuts be run to the right and left of the face to see whether or not there was any more of the vein outside of the drift. The local management there did not carry out this work as recommended but ran a raise at the face of the drift 30 feet high, then ran the crosscuts from the top of the raise claiming that it would be cheaper than running on the sill. I do not think it needs any argument to convince you that such a procedure was not in accordance with good mining. It added the

cost of the raise and besides had any ore been encountered in these raise crosscuts it would have been necessary to crosscut on the sill to such vein in order to continue its development.

The second example, which work however was not recommended by the Geological Department was the driving of an intermediate over the 700 south drift at an elevation of 30 feet above the 700. This has no value either from a prospecting or mining point of view as far as I am able to determine. Furthermore the development work carried out to develop the vein on this intermediate was not in accordance with good mining in my judgment.

In our endeavor to assist the local management there in laying out his 700 level developments to the north to get into the vein and follow it with a minimum number of twists and turns, Mr. Lyon was told that the Geological Department had nothing to do with developments of that kind as the Geological Department was only concerned in prospecting work.

We wish to give the Walker management as much assistance as possible, we have always done so and hope to continue to the best of our ability. We do not wish however to be held responsible for such work as has been done above the south end of the 700 level on the so-called 30 feet intermediate.

On the 600 feet level at the extreme north end, the prospecting drift or crosscut recently passed through four or five feet of good grade ore. Notwithstanding the expressed desire of the management to follow ore rather than waste this drift was

extended through the ore band for a few feet and was then extended northerly alongside of and parallel to the ore. I understand the drift will be turned further to the left to again get in the vein. I am quite unable to understand why the drift shouldn't have been turned on the ore rather than in the country rock within a few feet of it.

The reason I am writing you is because I am not at all in accord with the manner in which these prospecting operations are being carried out. As far as our end of it is concerned I do not feel that it is good mining and I hope that our department will not be held responsible for it.

Very truly yours,

(Signed) Reno H. Sales

RHS EL
Cc to T.T.Lyon.

November 17, 1924.

Mr. Reno H. Sales,
Anaconda Copper Mining Company
Hennessy Building
Butte, Montana.

My dear Reno:

A copy of your letter of October 25th, on the subject of operations at the Walker Mine, was sent to me while in Casanea for reply. I have delayed replying to same until I could get certain information in the New York office.

Apparently your letter represents your conclusions after a conference with Mr. Lyon and Mr. Elton, and does not represent a conclusion drawn from your own observation or analysis of all the data surrounding the problem.

I was somewhat disturbed on reading your letter, as I had spent the greater part of three days, on the ground and traveling from the Walker, in the company of Mr. Lyon and Mr. Elton and in that time not one single word was uttered that would lead me to believe that there was a direct or indirect criticism of the work being done, or that there was any lack of harmony or co-operation between the geological and operating departments. Nor was there any expression that would indicate a divergence of view. On the other hand, Mr. Greeninger expressed appreciation of the geological department and their work, and stated that he laid no claim to being a geologist and was glad to have the assistance of the department, and was working to meet their desires.

Taking your criticisms as they occur:

1st. Crosscuts from the main haulage level (7th level) south end. In 1923 when Mr. Thayer and myself were at the Walker we expressed the opinion that prospecting should not be done by or from the main haulage level by reason of the size of the drift, the relatively large radius turnouts for crosscuts, the large cars - making necessary wide crosscuts - which all made for expensive work. It was our opinion that prospecting should be done by small drifts and to do this it would necessitate drifts and crosscuts at a higher elevation than the haulage level. Mr. Elton and Mr. Hart did not follow this suggestion. On July 23rd, 1924, shortly after Mr. Greeninger took charge he arrived at the same conclusion independently, and on that date wrote me his reasons and after discussion with Mr. Thayer we found his conclusions the same as our own, and authorized the change of method. So we therefore are as responsible for this as Mr. Greeninger, and we still are of the same opinion. There is a further reason. You will note that the raise referred to is up to the height of the grizzley level and therefore will, when mining extends this far south, be connected with it. One of the

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developments of the caving system of mining is the economic handling of material after it is broken. This is done by raises to a grizzly on which the large chunks are broken and the undersize of the grizzly goes to the chute of the haulage level. Several of these raises may come to one grizzly, depending on the height of the ore. It does, however, cut out hand tramming. These grizzlies are placed in openings connected by a drift, for ventilation and communication. You will find that the raise referred to is part of this plan and system.

Your second example is answered in the above.

In reference to the 7th level north, I fully agree with you that a haulage level should not have twists and turns in it, if they can be avoided, and Mr. Greninger certainly is of the same opinion.

Under date of November 6th, 1924, Mr. Lyon writes "The main level has run into the foot wall. Mr. Greninger had turned it to the east at a small angle to work back into the vein again. Mr. Greninger is very anxious that this drift be driven as near to the exact foot-wall of the vein as possible. For this reason he desires to assume the responsibility for the direction it takes. I have accordingly given him that opportunity". There is a block of 800,000 tons of approximately 2% ore in this region that Mr. Greninger is studying in order to mine as cheaply as possible, and undoubtedly he wishes to place his haulage drift in the most advantageous position. I have had six years experience with Mr. Greninger and previous to that he was at Inspiration, Ray and other mining properties and made good at all of them. I have found that he does not do things haphazardly, but has his problems well thought out beforehand and has good logical reasoning behind what he does. Of course, he is subject to errors in judgment as we all are, but I have found him a thoroughly competent engineer and operator, and I am sure Mr. Thayer will concur in this statement.

On the 600 ft. level north end there is a possible criticism. They did get into waste for about 20 feet and turn to the vein again. I saw this myself and while it is easy to see after it is done it would be a difficult proposition while in progress, as the vein had low values before entering the waste and there was absolutely no wall to guide them. This is not an uncommon thing in the Walker Mine. Mr. Greninger is strong for running in the vein in ore so that he might have ore to handle and not waste. His instructions are to not pull the main orebody at a greater rate than 500 tons per day, but that any ore that he may get in development work that will pay to run through the mill, not considering mining cost, as it is broken anyhow, to run it. In this manner he will not pull the main orebody too fast and give us an opportunity to prepare other stopes by the time this body is mined, and he takes advantage of overhead that he has anyhow. At present he is getting about 100 tons per day of 1 w grade material that pays its way and nets some return under these conditions.

I trust the above explains our view point and that the departments will continue in harmony. I assure you that your department will not be held responsible for the mining operations or the methods pursued to perform the work that you outline, also that the work of the geological department at the Walker is highly appreciated.

Yours very truly,

WW:J

cc -Mr. Thayer

Mr. Elton - Mr. Lyon ✓



November 24, 1924

Mr. Wm. Wraith
25 Broadway
New York, N. Y.

My dear Will:

I have your letter today relative to the Walker.

My criticism of the sub-level 30 feet above 703 main drift south did not apply to the method of mining, but to the manner in which the work was carried out. I understand, of course, that the method of mining at the Walker requires such a sub-level, but it is surely essential to the proper carrying out of this method that the sub-level follows the ore, or the vein at least. There is no ore in 703 drift between 740 raise and 727 crosscut but 643 sub-level drift above this section does not even follow the vein, but wanders around in the footwall. Had it actually followed the vein it would have been useless anyhow it seems to me, because 703 drift shows there's no ore there to mine. 648 crosscut at the south end of 643 is similarly a useless piece of work. The two amount to 170 feet.

In Billingsley's judgment the first thing necessary in this south country, -I agree with him- was to put up raises to determine whether or not the ore disclosed in 703 south drift

2- Mr. Wm. Wraith

November 24, 1924

extended upward. If it does not, a sub-drift would not be needed. A further reason for getting these raises up was to definitely locate the ore at the 500 level elevation so as to guide the exploratory drift, #564, in its southward extension. The raises have not been made, and the 500 level south drift has wandered around and finally stopped, awaiting the completion of 750 raise. My point here is, that 750 raise should have been run as rapidly as possible and that the sub-level should have waited until the ore was proved, and its location at the 500 determined.

I see no reason for establishing a sub-level at the south end of 703 drift. There is no ore at 742 raise or within 100 feet of it, consequently mining will never extend to within 100 feet of this raise, and 742 raise can not properly be regarded as a part of the mining system. While I agree with you that in many instances crosscuts for prospecting purposes may best be run from intermediate or sub-levels it is of doubtful advisability to me where main workings are being extended out into new territory.

On the north end of the 600 level the Walker mine progress blueprint map, dated November 1, 1924, shows that 667 drift continued 60 feet in country rock waste before getting back into the vein, although there couldn't have been more than 3 feet of rock between the drift and the vein through all this distance. I know what the Walker vein looks like and I see no excuse for not following the ore when you have it. Even his last map does not show that he is now turning on the ore but instead he is crosscutting it again. On the 600 level south Lyon directed the management to continue drift 574 southerly on its course until it got through the irregular granite

3- Mr. Wm. Wra. 1

November 24, 1924

dikes in that vicinity. When the 574 was continued a granite dike was encountered, but instead of continuing straight ahead through the dike as directed, the management turned and crosscutted 35 feet to the right, a useless piece of crosscut as there could be no reason for expecting to pick up the vein or a vein in that crosscut. On Mr. Lyon's last trip to the Walker this south work was stopped until such time when the 700 raise reaches the 500 level.

I know the Geological Department will not be held responsible for mining operations at the Walker. I do not want you to feel that I am criticising the mining end. I may differ from you in opinion as to the proper method of prospecting certain areas, but in the final say as to how it will be done I certainly am always glad and willing to leave it to the mine management. But the Geological Department has in the past been held responsible, to some degree at least, for prospecting and development work, and whenever I see drifts run in waste when they should be in ore, or at least should be in the vein; and crosscuts run that are useless, I am going to kick, anyhow as long as this department has anything to do with it.

You may be sure that no one appreciates more than I the value of harmony and cooperation in an organization. Whatever criticisms I may have to offer are made with the main object in view, namely, helping the Walker mine to find all the ore there is in their ground and to mine it as cheaply as possible.

Very truly yours,

RHS/P
cc: Mr. Lyon

(Signed) Reno H. Sales

CORPORATION INCOME TAX RETURN For Calendar Year 1924

File This Return with the Collector of Internal Revenue for Your District on or Before March 15, 1925

PRINT PLAINLY CORPORATION'S NAME AND BUSINESS ADDRESS

WALDEN MINING COMPANY
(Name)

Room 1801 - 25 Broadway
(Street and Number)

New York City, N. Y.
(Post office and State)

Date of Incorporation November 15th, 1913.

Under the Laws of What State or Country Arizona

File Code

Serial Number

First Payment

Examined

By (Cashier's Stamp)

Cash Check M. O. Cert. of Ind.

KIND OF BUSINESS Mining and Milling Ore IS THIS A CONSOLIDATED RETURN? No

GROSS INCOME				
1. Gross Sales from Trading or Manufacturing, Less Returns and Allowances		\$	1,246,057	61
2. Less Cost of Goods Sold:				
(a) Inventory at beginning of year	\$	120	310	84
(b) Merchandise bought for sale				
(c) Cost of manufacturing or otherwise producing goods (From Schedule A)		849	693	73
(d) Total of lines (a), (b), and (c)	\$	970	004	57
(e) Less inventory at end of year		376	880	63
3. Gross Profit from Trading or Manufacturing (Item 1 minus Item 2)			593	123
4. Gross Profit from Operations Other Than Trading or Manufacturing. (State source of income):			652	933
(a)				
(b)				
(c)				
5. Interest on Bank Deposits, Notes, Mortgages, and Corporation Bonds				
6. Rents				
7. Royalties				
8. Profit from Sale of Real Estate, Stocks, Bonds, and other Capital Assets (From Schedule B)				
9. Dividends on Stock of Domestic Corporations				
10. Other Income (including dividends received on stock of foreign corporations). (State nature of income):				
(a) Refund Liability Insurance			9	677
(b) Miscellaneous				304
(c)				02
11. TOTAL INCOME IN ITEMS 3 TO 10			662	914

DEDUCTIONS				
12. Compensation of Officers (From Schedule C)				
13. Rent on Business Property				
14. Repairs (From Schedule D)			186	792
15. Interest			84	387
16. Taxes (From Schedule E)			11	298
17. Losses by Fire, Storm, etc. (From Schedule F)				
18. Bad Debts (From Schedule G)				
19. Dividends (From Schedule H)				
20. Depreciation (resulting from exhaustion, wear and tear, or obsolescence) (From Schedule I)			162	187
21. Depletion of Mines, Oil and Gas Wells, Timber, etc.			220	114
22. Other Deductions Not Reported Above. (Explain below, or on separate sheet):				
(a) Salaries and wages. (Not included in Item 2, 12, or 14 above)				
(b)				
(c)				
(d)				
(e)				
(f)				
23. TOTAL DEDUCTIONS IN ITEMS 12 TO 22			664	780
24. NET INCOME (Item 11 minus Item 23)			1	865

COMPUTATION OF TAX			
25. Net Income (Item 24 above)	\$	1,865	91
26. Less Credit of \$2,000 (for a domestic corporation having a net income of less than \$25,250)			
27. Balance (Item 25 minus Item 26)	\$		
28. Income Tax (12% of Item 27)	\$		None
29. If the Net Income of a Domestic Corporation is Less Than \$25,250, Enter the Amount in Excess of \$25,000			
30. Total Tax (Item 28 plus Item 29)	\$		
31. Less: Income Tax Paid at Source. (This credit can only be allowed to a nonresident foreign corporation)	\$		
32. Income and Profits Taxes Paid to a Foreign Country or to a Possession of the United States by a domestic corporation			
33. Balance of Tax (Item 30 minus Items 31 and 32)	\$		None

An amended return must be marked "Amended" at top of return

Checks and drafts will be accepted only if payable at par 1-1274

MIN 000012372

SCHEDULE K—BALANCE SHEETS (See Instruction 25)

Items	BEGINNING OF TAXABLE YEAR			END OF TAXABLE YEAR					
	Amount			Total					
ASSETS									
1. Cash				\$	44	875 16	\$	52	008 34
2. Notes receivable									
3. Accounts receivable	\$	14	944 87				\$	22	523 78
Less reserve for bad debts					14	944 87			22 523 78
4. Inventories:									
Raw materials	\$						\$		
Work in process		120	310 84					376	880 63
Finished goods									
Supplies		145	544 69					154	017 98
					265	855 53			530 898 61
5. Investments:									
Obligations of a State, Territory, or any political sub- division thereof, or the District of Columbia	\$						\$		
Securities issued under the Federal Farm Loan Act, or under such Act as amended									
Obligations of the United States or its possessions									
6. Loans (describe fully):	\$						\$		
7. Deferred charges:									
Prepaid insurance	\$	1	188 20				\$	1	390 56
Prepaid taxes and licenses								4	113 29
Electric Power Pole Line		7	853 69		9	041 89			5 503 85
8. Capital assets:									
Land									
Buildings	\$						\$		
Machinery and equipment		1	248 216 93					1	297 997 45
Furniture and fixtures									
Delivery equipment									
Mines and Mining Claims		1	252 755 14					1	263 994 13
Development		637	230 50					638	951 72
	\$	3	138 202 57				\$	3	200 943 30
Less reserves for depreciation and depletion		268	003 32		2	870 199 25		731	737 59
9. Patents									
10. Good will									
11. Other assets (describe fully):	\$						\$		
12. TOTAL ASSETS				\$	3	204 916 70		\$	3 080 140 25
LIABILITIES									
13. Notes payable				\$	1	166 220 09		\$	1 166 220 09
14. Accounts payable					296	244 60			173 334 10
15. Accrued expenses (describe fully):	\$						\$		
16. Other liabilities (describe fully):	\$						\$		
17. Capital stock:									
Preferred stock (less stock in treasury)	\$	100	000 00				\$	100	000 00
Common stock (less stock in treasury)		1	749 308 00		1	849 308 00		1	749 308 00
18. Surplus	\$						\$		
19. Undivided profits					106	855 99			108 721 90
20. TOTAL LIABILITIES				\$	3	204 916 70		\$	3 080 140 25

Remarks

SNOLLCRISNI

Page 2 of Return

SCHEDULE A—COST OF MANUFACTURING OR PRODUCING GOODS (See Instruction 2)

ITEMS	AMOUNT	ITEMS	AMOUNT (Enter as Item 2c)
Salaries and wages	\$362,381.00		\$
Material and supplies	137,273.92		
Insurance	16,539.75		
Power	42,818.00		
Royalty	17,973.46		
Development	91,507.11		
Miscellaneous	21,356.90		
Freight	159,843.59	\$849,693.73	

SCHEDULE B—PROFIT FROM SALE OF REAL ESTATE, STOCKS, BONDS, ETC. (See Instruction 8)

1. KIND OF PROPERTY	2. DATE ACQUIRED	3. AMOUNT RECEIVED	4. DEPRECIATION PREVIOUSLY ALLOWED	5. COST	6. VALUE AS OF MARCH 1, 1913	7. SUBSEQUENT IMPROVEMENTS	8. NET PROFIT (Enter as Item 8)
None		\$	\$	\$	\$	\$	\$

State how property was acquired

SCHEDULE C—COMPENSATION OF OFFICERS (See Instruction 12)

1. NAME OF OFFICER	2. OFFICIAL TITLE	3. TIME DEVOTED TO BUSINESS	SHARES OF STOCK OWNED		6. AMOUNT OF COMPENSATION (Enter as Item 12)
			4. Common	5. Preferred	
None					\$

SCHEDULE D—COST OF REPAIRS (See Instruction 14)

SCHEDULE E—TAXES PAID (See Instruction 16)

1. ITEMS	2. AMOUNT (Enter as Item 14)	1. ITEMS	2. AMOUNT (Enter as Item 16)
Salaries and wages	\$ 84,345.55	Capital Stock Tax	\$ 902.00
Supplies	89,609.02	State, City and County	10,396.86
Power	1,955.16		
Miscellaneous	10,882.44		
	\$186,792.17		\$11,298.86

SCHEDULE F—EXPLANATION OF LOSSES BY FIRE, STORM, ETC. (See Instruction 17)

1. KIND OF PROPERTY	2. DATE ACQUIRED	3. COST	4. VALUE AS OF MARCH 1, 1913	5. SUBSEQUENT IMPROVEMENTS	6. DEPRECIATION PREVIOUSLY ALLOWED	7. INSURANCE AND SALVAGE VALUE	8. NET LOSS (Enter as Item 17)
None		\$	\$	\$	\$	\$	\$

State how property was acquired

SCHEDULE G—BAD DEBTS (See Instruction 18)

SCHEDULE H—DIVIDENDS DEDUCTIBLE (See Instruction 19)

1. YEAR	2. SALES ON ACCOUNT	3. BAD DEBTS	1. NAMES OF CORPORATION	AMOUNT OF DIVIDENDS	
				2. Domestic	3. Foreign
1919	\$	\$		\$	\$
1920					
1921	None		None		
1922					
1923					

SCHEDULE I—EXPLANATION OF DEDUCTION FOR DEPRECIATION (See instruction 20)

1. KIND OF PROPERTY (If buildings, state material of which constructed)	2. DATE ACQUIRED	3. AGE WHEN ACQUIRED	4. PROBABLE LIFE AFTER ACQUISITION	5. COST	6. VALUE AS OF MARCH 1, 1913	AMOUNT OF DEPRECIATION CHARGED OFF	
						7. Previous years	8. This year
Mine and Mill Buildings	VARIOUS			\$271,997.45	\$	\$68,526.45	\$152,112.29
Machinery and Equipment							
Loss in Dismantlement							10,074.95
							\$162,187.28

Attach a separate sheet if any of the above schedules do not provide sufficient space

2-3274

MIN 000012374

SCHEDULE L—RECONCILIATION OF NET INCOME AND ANALYSIS OF CHANGES IN SURPLUS

1. Net income from Item 24, page 1 of the return	1	865	91	13. Unallowable deductions:	
2. Nontaxable income:				(a) Donations, gratuities, and contributions	
(a) Interest on obligations of a State, Territory, or any political subdivision thereof, or the District of Columbia				(b) Income and profits taxes paid to the United States, and so much of such taxes paid to its possessions or foreign countries as are claimed as a credit in Item 32, page 1 of the return	
(b) Interest on securities issued under the Federal Farm Loan Act, or under such Act as amended				(c) Special improvement taxes tending to increase the value of the property assessed	
(c) Interest on obligations of the United States or its possessions				(d) Furniture and fixtures, additions, or betterments treated as expenses on the books	
(d) Dividends deductible under Section 24(a) 6 of the Revenue Act of 1924				(e) Replacements and renewals	
(e) Proceeds of life insurance policies paid upon the death of the insured				(f) Insurance premiums paid on the life of any officer or employee where the corporation is directly or indirectly a beneficiary	
(f) Other items of nontaxable income (to be detailed):				(g) Interest on indebtedness incurred or continued to purchase or carry obligations or securities (other than obligations of the United States issued after September 21, 1917, and originally subscribed for by the corporation) the interest upon which is wholly exempt from taxation	
(1) _____				(h) Additions to reserve for bad debts which are not included in Item 18, page 1 of return	
(2) _____				(i) Additions to reserves for contingencies, etc. (to be detailed):	
(3) _____				(1) _____	
3. Charges against reserve for bad debts, if Item 18, page 1 of return, is not an addition to a reserve				(2) _____	
4. Charges against reserves for contingencies, etc. (to be detailed):				(3) _____	
(a) _____				(j) Other unallowable deductions (to be detailed):	
(b) _____				(1) _____	
(c) _____				(2) _____	
5. Total of Lines 1 to 4, inclusive				(3) _____	
6. Total from Line 14				14. Total of Line 13	None
7. Net profit for year as shown by books, before any adjustments are made therein (Line 5 minus Line 6)	1	865	91	15. Dividends paid during the taxable year (state whether paid in cash, stock of this company, or other property):	
8. Surplus and undivided profits as shown by balance sheet at close of preceding taxable year	106	855	99	(a) Date paid _____ Character _____	
9. Other credits to surplus (to be detailed):				(b) Date paid _____ Character _____	
(a) _____				(c) Date paid _____ Character _____	
(b) _____				(d) Date paid _____ Character _____	
(c) _____				16. Other debits to surplus (to be detailed):	
10. Total of Lines 7 to 9, inclusive	108	721	90	(a) _____	
11. Total from Line 17				(b) _____	
12. Surplus and undivided profits as shown by balance sheet at close of taxable year (Line 10 minus Line 11)	108	721	90	(c) _____	
				17. Total of Lines 15 and 16	None

QUESTIONS

1. By means of the key letters given below, identify the corporation's main income-producing activity with one of the general classes, and follow this by a special description of the business sufficient to give the information called for under each general class.

A.—Agriculture and related industries, including fishing, logging, ice harvesting, etc., and also the leasing of such property. State the product or products. B.—Mining and quarrying, including gas and oil wells, and also the leasing of such property. State the product or products. C.—Manufacturing. State the product and also the material if not implied by the name of the product. D.—Construction—excavations, buildings, bridges, railroads, ships, etc., also equipping and installing same with systems, devices, or machinery, without their manufacture. State nature of structures built, materials used, or kind of installations. E1.—Transportation—rail, water, local, etc. State the kind and special product transported, if any. E2.—Public utilities—gas (natural, coal, or water); electric light or power (hydro or steam generated); heating (steam or hot water); telephone, waterworks or power. E3.—Storage—without trading or profit from sales—(elevators, warehouses, stock-yards, etc.). State product stored. E4.—Leasing transportation or utilities. State kind of property. F.—Trading in goods bought and not produced by the trading concern. State manner of trade, whether wholesale, retail, or commission, and product handled. Sales with storage with profit primarily from sales. G.—Service—domestic, including hotels, restaurants, etc.; amusements; other professional, personal, or technical service. State the service. H.—Finance, including banking, real estate, insurance. I.—Concerns not falling in above classes (a) because of combining several of them with no predominant business, or (b) for other reasons.

2. Concerns whose business involves activity falling in two or more of the above general classes, where the same product is concerned, should report business as identified with but one of the above general classes; for example, concerns in A or B which also transport and market their own product exclusively or mainly, should still be identified with classes A or B; concerns in C (manufacturing) which own or control their source of material supply in A or B and which also transport, sell, or install their own product exclusively or mainly, should be identified with manufacturing; concerns in D may control or own the source of supply of materials used exclusively or mainly in their constructive work; concerns in E1 or E2 may own or control the source of their material or power; concerns in F may transport or store their own merchandise, but its production would identify them with A, B, or C.

3. Answers:

(a) General class (use key letter designation) B
 (b) Main income-producing business (give specifically the information called for under each key letter, also whether acting as principal, or as agent on commission; state if inactive or in liquidation)

Mining and Milling Ores

AFFILIATIONS WITH OTHER CORPORATIONS

SEE INSTRUCTION 34

4. Does the corporation own 95 per cent or more of the outstanding voting capital stock of another domestic corporation or of other corporations? No

5. Is over 95 per cent or more of your outstanding voting capital stock owned by another corporation? No

6. Is 95 per cent or over of your outstanding voting capital stock as well as 95 per cent or over of the outstanding voting capital stock of another corporation or of other corporations owned or controlled by the same individual or partnership or by the same individuals, partnerships, or corporations in substantially the same proportion? No

7. If the answer to questions 4, 5, and 6, or to any of them, is "yes," answer the following:

(a) Did the corporation file Form 819, Affiliated Corporations Questionnaire, for 1917 or subsequent taxable years? _____ If the answer to this question is "yes," a questionnaire is not required, except under the circumstances described in question (b). If the answer to this question is "no," and the answer to questions 4, 5, and 6, or to any of them, is "yes," procure from the Collector of Internal Revenue for your district Forms 851, 852, 853, and 853A, Affiliations Schedules 1, 2, 3, and 4, which shall be filled in and filed as a part of this return. If the answer to this question is "no," question (b) need not be answered.

AFFIDAVIT

We, the undersigned, president and Asst. Secretary of the corporation for which this return is made, being severally duly sworn, each for himself deposes and says that this return, including the accompanying schedules and statements, has been examined by him and is, to the best of his knowledge and belief, a true and complete return made in good faith, for the taxable year as stated, pursuant to the Revenue Act of 1924 and the Regulations issued under authority thereof.

Sworn to and subscribed before me this 15 day of May 1925



W. S. Martin
 (Signature of officer administering oath)

Wm. White
 (Title)

Wm. White Vice-President
E. O. Lawrence Asst. Secretary

SCHEDULE A—COST OF MANUFACTURING OR PRODUCING GOODS (See Instruction 2)

ITEMS	AMOUNT	ITEMS	AMOUNT (Enter as Item 2c)
Salaries and wages	\$267,281.00		
Material and supplies	121,713.97		
Insurance	16,539.15		
Power	47,818.00		
Royalty	17,913.46		
Development	91,501.11		
Miscellaneous	21,356.90		
Freight	159,843.59		
			\$849,693.19

SCHEDULE B—PROFIT FROM SALE OF REAL ESTATE, STOCKS, BONDS, ETC. (See Instruction 8)

1. KIND OF PROPERTY	2. DATE ACQUIRED	3. AMOUNT RECEIVED	4. DEPRECIATION PREVIOUSLY ALLOWED	5. COST	6. VALUE AS OF MARCH 1, 1913	7. SUBSEQUENT IMPROVEMENTS	8. NET PROFIT (Enter as Item 8)
NONE							

State how property was acquired

SCHEDULE C—COMPENSATION OF OFFICERS (See Instruction 12)

1. NAME OF OFFICER	2. OFFICIAL TITLE	3. TIME DEVOTED TO BUSINESS	SHARES OF STOCK OWNED		8. AMOUNT OF COMPENSATION (Enter as Item 12)
			4. Common	5. Preferred	
NONE					

SCHEDULE D—COST OF REPAIRS (See Instruction 14)

SCHEDULE E—TAXES PAID (See Instruction 16)

1. ITEMS	2. AMOUNT (Enter as Item 14)	1. ITEMS	2. AMOUNT (Enter as Item 16)
Salaries and wages	\$87,345.55	Capital Stock Tax	\$907.00
Supplies	89,609.07	State, City and County	10,396.86
Power	1,955.16		
Miscellaneous	10,887.44		
	\$186,197.14		11,298.86

SCHEDULE F—EXPLANATION OF LOSSES BY FIRE, STORM, ETC. (See Instruction 17)

1. KIND OF PROPERTY	2. DATE ACQUIRED	3. COST	4. VALUE AS OF MARCH 1, 1913	5. SUBSEQUENT IMPROVEMENTS	6. DEPRECIATION PREVIOUSLY ALLOWED	7. INSURANCE AND SALVAGE VALUE	8. NET LOSS (Enter as Item 17)
NONE							

State how property was acquired

SCHEDULE G—BAD DEBTS (See Instruction 18)

SCHEDULE H—DIVIDENDS DEDUCTIBLE (See Instruction 19)

1. YEAR	2. SALES ON ACCOUNT	3. BAD DEBTS	1. NAME OF CORPORATION	AMOUNT OF DIVIDENDS	
				2. Domestic	3. Foreign
1910					
1920	NONE		NONE		
1921					
1922					
1923					

SCHEDULE I—EXPLANATION OF DEDUCTION FOR DEPRECIATION (See instruction 20)

1. KIND OF PROPERTY (If buildings, state material of which constructed)	2. DATE ACQUIRED	3. AGE WHEN ACQUIRED	4. PROBABLE LIFE AFTER ACQUISITION	5. COST	6. VALUE AS OF MARCH 1, 1913	AMOUNT OF DEPRECIATION CHARGED OFF	
						7. Previous years	8. This year
Mine and mill Buildings				\$1,797,997.45		\$68,576.45	\$157,117.79
Machinery and Equipment	Various						
Loss in Disarmament							10,074.99
							167,191.78

Attach a separate sheet if any of the above schedules do not provide sufficient space

SCHEDULE L—RECONCILIATION OF NET INCOME AND ANALYSIS OF CHANGES IN SURPLUS

1. Net income from Item 24, page 1 of the return	865.01	
2. Non-taxable income:		
(a) Interest on obligations of a State, Territory, or any political subdivision thereof, or the District of Columbia		
(b) Interest on securities issued under the Federal Farm Loan Act, or under such Act as amended		
(c) Interest on obligations of the United States or its possessions		
(d) Dividends deductible under Section 24(a) 6 of the Revenue Act of 1924		
(e) Proceeds of life insurance policies paid upon the death of the insured		
(f) Other items of non-taxable income (to be detailed):		
(1)		
(2)		
(3)		
3. Charges against reserve for bad debts, if Item 18, page 1 of return, is not an addition to a reserve		
4. Charges against reserves for contingencies, etc. (to be detailed):		
(a)		
(b)		
(c)		
5. Total of Lines 1 to 4, inclusive	1865.91	
6. Total from Line 14	NONE	
7. Net profit for year as shown by books, before any adjustments are made therein (Line 5 minus Line 6)	1865.91	
8. Surplus and undivided profits as shown by balance sheet at close of preceding taxable year	106856.99	
9. Other credits to surplus (to be detailed):		
(a)		
(b)		
(c)		
10. Total of Lines 7 to 9, inclusive	108171.90	
11. Total from Line 17	NONE	
12. Surplus and undivided profits as shown by balance sheet at close of taxable year (Line 10 minus Line 11)	108171.90	
13. Unallowable deductions:		
(a) Donations, gratuities, and contributions		
(b) Income and profits taxes paid to the United States, and so much of such taxes paid to its possessions or foreign countries as are claimed as a credit in Item 22, page 1 of the return		
(c) Special improvement taxes tending to increase the value of the property assessed		
(d) Furniture and fixtures, additions, or betterments treated as expenses on the books		
(e) Replacements and renewals		
(f) Insurance premiums paid on the life of any officer or employee where the corporation is directly or indirectly a beneficiary		
(g) Interest on indebtedness incurred or continued to purchase or carry obligations or securities (other than obligations of the United States issued after September 24, 1917, and originally subscribed for by the corporation) the interest upon which is wholly exempt from taxation		
(h) Additions to reserve for bad debts which are not included in Item 18, page 1 of return		
(i) Additions to reserves for contingencies, etc. (to be detailed):		
(1)		
(2)		
(3)		
(j) Other unallowable deductions (to be detailed):		
(1)		
(2)		
(3)		
14. Total of Line 13		
15. Dividends paid during the taxable year (state whether paid in cash, stock of this company, or other property):		NONE
(a) Date paid		
Character		
(b) Date paid		
Character		
(c) Date paid		
Character		
(d) Date paid		
Character		
16. Other debits to surplus (to be detailed):		
(a)		
(b)		
(c)		
17. Total of Lines 15 and 16		NONE

QUESTIONS

1. By means of the key letters given below, identify the corporation's main income-producing activity with one of the general classes, and follow this by a special description of the business sufficient to give the information called for under each general class.

A.—Agriculture and related industries, including fishing, logging, ice harvesting, etc., and also the leasing of such property. State the product or products. B.—Mining and quarrying, including gas and oil wells, and also the leasing of such property. State the product or products. C.—Manufacturing. State the product and also the material if not implied by the name of the product. D.—Construction—excavations, buildings, bridges, railroads, ships, etc., also equipping and installing same with systems, devices, or machinery, without their manufacture. State nature of structures built, materials used, or kind of installations. E1.—Transportation—rail, water, local, etc. State the kind and special product transported, if any. E2.—Public utilities—gas (natural, coal, or water); electric light or power (hydro or steam generated); heating (steam or hot water); telephone; waterworks or power. E3.—Storage—without trading or profit from sales—(elevators, warehouses, stockyards, etc.). State product stored. E4.—Leasing transportation or utilities. State kind of property. F.—Trading in goods bought and not produced by the trading concern. State manner of trade, whether wholesale, retail, or commission, and product handled. Sales with storage with profit primarily from sales. G.—Service—domestic, including hotels, restaurants, etc.; amusements; other professional, personal, or technical services. State the service. H.—Finance, including banking, real estate, insurance. I.—Concerns not falling in above classes (a) because of combining several of them with no predominant business, or (b) for other reasons.

2. Concerns whose business involves activity falling in two or more of the above general classes, where the same product is concerned, should report business as identified with but one of the above general classes; for example, concerns in A or B which also transport and market their own product exclusively or mainly, should still be identified with classes A or B; concerns in C (manufacturing) which own or control their source of material supply in A or B and which also transport, sell, or install their own product exclusively or mainly, should be identified with manufacturing; concerns in D may control or own the source of supply of materials used exclusively or mainly in their constructive work; concerns in E1 or E2 may own or control the source of their material or power; concerns in F may transport or store their own merchandise, but its production would identify them with A, B, or C.

3. Answers:

- (a) General class (use key letter designation) B
- (b) Main income-producing business (give specifically the information called for under each key letter, also whether acting as principal, or as agent on commission; state if inactive or in liquidation)

Mining and Milling Co.

AFFILIATIONS WITH OTHER CORPORATIONS

SEE INSTRUCTION 3a

4. Does the corporation own 95 per cent or more of the outstanding voting capital stock of another domestic corporation or of other corporations? No

5. Is over 95 per cent or more of your outstanding voting capital stock owned by another corporation? No

6. Is 95 per cent or over of your outstanding voting capital stock as well as 95 per cent or over of the outstanding voting capital stock of another corporation or of other corporations owned or controlled by the same individual or partnership or by the same individuals, partnerships, or corporations in substantially the same proportion? No

7. If the answer to questions 4, 5, and 6, or to any of them, is "yes," answer the following:

(a) Did the corporation file Form 819, Affiliated Corporations Questionnaire, for 1917 or subsequent taxable years? No. If the answer to this question is "yes," a questionnaire is not required, except under the circumstances described in question (b). If the answer to this question is "no," and the answer to questions 4, 5, and 6, or to any of them, is "yes," procure from the Collector of Internal Revenue for your district Forms 851, 852, 853, and 853A, Affiliations Schedules 1, 2, 3, and 4, which shall be filed in and filed as a part of this return. If the answer to this question is "no," question (b) need not be answered.

(b) Did substantially the same conditions, as are set out in the Questionnaire or Schedule filed for 1923 or prior years, obtain during the entire calendar year 1924? No. If the answer to this question is "no," a statement, setting forth the particulars in which the situation has changed, should be attached to and made a part of this return. If there have been substantial changes in stockholdings, a complete schedule of such changes should be submitted on Form 853, Affiliations Schedule 3. If there are companies other than those covered by the Questionnaire or Schedule for prior years which, applying the tests contained in questions 4, 5, or 6, may have come into the affiliated group since 1923, Forms 851, 852, 853, and 853A, are required for the entire group for the taxable year.

(c) Did the corporation file a consolidated return for the preceding taxable year? No

PREDECESSOR BUSINESS

8. Did the corporation file a return under the same name for the preceding taxable year? No. If not, was the corporation in any way an outgrowth, result, continuation, or reorganization of a business or businesses in existence during this or the preceding taxable year? No. If answer is "yes," give name and address of each predecessor business.

BASIS OF RETURN

9. Is this return made on the basis of actual receipts and disbursements? No. If not, describe fully what other basis or method was used in computing net income.

Accrual

LIST OF ATTACHED SCHEDULES

10. Enter below a list of all schedules accompanying this return, giving for each a brief title and the schedule number. The name and address of the taxpayer should be placed on each separate schedule accompanying the return.

Depletion Schedule
Certificate of Inventories

AFFIDAVIT

We, the undersigned, president and treasurer of the corporation for which this return is made, being severally duly sworn, each for himself deposes and says that this return, including the accompanying schedules and statements, has been examined by him and is, to the best of his knowledge and belief, a true and complete return made in good faith, for the taxable year as stated, pursuant to the Revenue Act of 1924 and the Regulations issued under authority thereof.

Sworn to and subscribed before me this _____ day of _____, 1925



(Signature of officer administering oath)

(Title)

2-12274

V. C. F. President

Ass't Sec'y

MIN 00012377

INTERNATIONAL SMELTING COMPANY
STATEMENT OF CHARGES TO AFFILIATED COMPANIES
DURING YEAR - 1924

Anaconda Copper Mining Company, General Office, Butte, Montana.

Expenditures account of Geological Department	\$ 3,863.41
Traveling Expenses - Frederick Laist - General Office	526.25
" " - F.P. Frick - General Office	115.29
" " - Reno Sales - General Office	170.45
" " - R.J. Care - General Office	100.00
" " - E.L. Larison - General Office	50.00
" " - P.A. Friedell - General Office	18.20
" " - R.B. Caples - General Office	20.91
Supplies, and Expenses for Research Department	4,814.22
Crude Arsenic shipped to Anaconda Reduction Works	73,992.98
Zinc Ore and Concentrates shipped to Anaconda Copper Mining Company, Great Falls, Montana.	<u>296,307.52</u>
Charged to International Smelting Company, New York	<u>379,979.23</u>

International Lead Refining Company

Telephone and Telegraph Service	6.25
Representing, Weighing and Sampling Lead Bullion at Midvale, Utah	523.75
Bristol Thermometer and Tube	73.66
Postage	<u>16.00</u>
Charged to International Smelting Company, New York	<u>619.66</u>

Walker Mining Company

Telephone and Telegraph Service	297.56
Salary - V.A. Hart	2,500.00
Freight, Express and Postage	618.96
Expenses - Utah Offices	8,516.66
Expenses - J.O. Elton	389.84
Proportion of New York Offices for Year 1924	1,950.68
Invoices of Purchasing Department - New York	31,858.34
Steel Grinding Balls from Chrome Steel Works	5,522.25
Stationery and Printing	463.34
Salary and Expenses - W.C. Page	333.98
Salary - W.J. McKenna	145.05
Proportion of Geological Department Expenses	2,168.35
Capital Stock Tax	902.00
Freight, Insurance, Handling charges, etc. on Steel Balls	6,388.86
Royalty	1,110.10
Miscellaneous Expenses	1,773.11
Miscellaneous Labor and Supplies	269.87
Penalty for Delay in shipment of Ore and Concentrates	9,949.54
Interest	<u>69,973.19</u>
Total:-	<u>145,131.68</u>

Tooele Valley Railway Company

Labor, Supplies and Expenses	<u>35,597.33</u>
Total:-	<u>35,597.33</u>

WALKER MINING COMPANY

SPRING GARDEN

PLUMAS COUNTY, CALIFORNIA

H. R. TUNNELL, MANAGER

May 3, 1925

Mr. Tom Lyon
Kearns, Building
Salt Lake City, Utah.

Dear Tom:-

When your letter of April 29th arrived, we had just decided to stop the advance in 712 drift north and do some lateral development work.

We have started a raise 242 feet north of station 765. This raise will be driven 45 degrees to the horizontal to cut the vein and will follow the vein to the sixth level and serve as an ore pass and for ventilation.

Further work in 712 drift north will wait until the sub-level drift is driven beyond the present face. We are working only one shift in the crosscut at the north end of our sixth level workings, and I believe we should get some diamond drill holes under the outcrop lying to the north before advancing the sixth level further.

Our work of blocking out ore in the south ore body and in the 2nd ore body is beginning to show, and I believe you should come down again in a few weeks and look over these new places and revise the grade and tonnage in these ore bodies. We have finished 380 stope and have made a start on the pillars in 480 stope.

Yours very truly,



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WALKER MINING COMPANY

SPRING GARDEN
PLUMAS COUNTY, CALIFORNIA

I. L. GRENINGER, MANAGER

May 21, 1925.

Mr. Wm. Wraith,
Vice President,
Walker Mining Company,
Room 1825, 25 Broadway,
New York, N. Y.

Dear Sir:-

We have reached the following conclusions regarding the development work to be done on the north ore body. The work as we have planned it will determine the grade and tonnage as well as partially prepare for subsequent stoping.

Two prints are inclosed which indicate the position of the sub level and crosscuts, of course as the work progresses the position will be changed somewhat to suit the conditions encountered. The plan of the 700 shows the position of the raises which will hold the exploratory crosscuts from the sub level.

The results of the prospecting on the sub level to date have been somewhat encouraging as the average assay of all openings on the vein is 2.67% copper.

The actual plans in detail are as follows:-

Extend 677s drift north and 679s drift south until a connection is made. Crosscut at intervals of 50 feet as indicated on the inclosed plan of the sub level. This work will establish the southern margin of the north ore body. A raise will be started at this point and carried to the 300 level.

Extend 678s drift north with crosscuts at 50 foot intervals until the northern margin of the ore is reached.

From the 700 level raise every 50 feet to hole the crosscuts on the sub level will be driven as indicated on the inclosed plan of this level.

The 300 level cannot be extended north until at least one raise is completed from the 700 level.

While the grade of ore exposed in the present openings on the sub level is to be considered very good for this portion of the mine, subsequent openings may be considerable lower, but we hope the entire mass will average 2% as indicated by the 600.

Very truly yours,

A. R. Tammes
Tom Lyon ✓

CC Mr. Tammell,
CC Mr. R. H. Sales,

SUPT. OF MINES DEPT.

Report of the
**Walker Mining
Company**



SUPT. OF MINES DEPT.

For the Year Ending July 31, 1925

Walker Mining Company

PLUMAS COUNTY, CALIFORNIA

P. O. and Shipping Point
SPRING GARDEN, CALIFORNIA

Operating Office
KEARNS BUILDING, SALT LAKE CITY, UTAH.

(Incorporated under the Laws of the State of Arizona)

CAPITAL STOCK

COMMON—AUTHORIZED	- - - - -	1,750,000 shares at \$1.00 per share
ISSUED	- - - - -	1,749,308 shares at \$1.00 per share

Directors

J. R. WALKER	GEO. BAGLIN	J. O. ELTON	J. B. WHITEHILL
B. R. HOWELL	W. R. WALKER	WILLIAM WRAITH	

Officers

J. R. WALKER, *President*
WILLIAM WRAITH, *Vice-President*
J. O. ELTON, *Vice-President*
J. B. WHITEHILL, *Secretary-Treasurer*

Directors' Report

Salt Lake City, Utah, September 18, 1925.

To the Stockholders of the Walker Mining Company:

The following report covering the transactions and operations of your Company for the year ending July 31, 1925, is submitted:

The Walker Mining Company produced during the year, in ore and concentrates:

Copper, pounds	12,776,038
Silver, ounces	228,553.57
Gold, ounces	7,692.944

The cost of producing copper (not including depletion, depreciation, interest or Federal taxes) was 9.485 cents per pound.

You will be interested to know that in the Main Ore Body, which has been mined for nine years, approximately one-half or 465,440 tons of 4.03% copper still remain, of which over 190,000 tons are broken, as shown by the books of the company. It is also estimated that there are over 900,000 tons in the North Ore Body above the 7th level. This ore will average 2.22% copper. Big results should be had by extending the 600 ft. level to the north, as it is now 2,120 feet north of the main supply shaft, and is about under the longest outcrop on the property.

The outstanding Preferred Stock of your Company, amounting to 100,000 shares was retired July 10, 1925.

The Balance Sheet and income account, certified to by Messrs. Pogson, Peloubet & Company, Public Accountants, are submitted herewith.

For a full account of the operations of your Company you are respectfully referred to the report of the General Manager which follows.

J. R. WALKER, *President.*

Manager's Report

Spring Garden, California, September 7, 1925.

Mr. J. R. Walker, President,
Walker Mining Company,
Salt Lake City, Utah.

Dear Sir:

I beg to submit herewith the annual report of the Walker Mining Company, covering the period of twelve months beginning August 1, 1924, and ending July 31, 1925.

MINING DEPARTMENT

The tonnage of ores mined during the year were as follows:

Ore, broken	255,000 Tons
Ore, produced and trammed	239,632 Tons

During the year the large ore body, lying seven hundred feet north of the main ore body on the sixth level, has been partially developed and explored by drifts and crosscuts on the sixth and seventh levels. An average grade of 2.00 per cent copper is indicated on the sixth level in a stoping area over one thousand feet in length. Stopping widths at this grade will vary from ten feet to twenty-five feet.

The tunnel level was driven nine hundred and ninety-five feet toward the north. Approximately nine hundred and sixty-five feet of drifting and crosscutting was done in the sublevel opened thirty feet above the seventh level. Ore is being mined from a stope one hundred and fifty feet in length and work is being done preparatory to opening this entire ore body for stoping.

The sixth level was driven toward the north exploring new territory for a distance of six hundred and fifty feet. The first three hundred feet was driven in the ore body mentioned above and the remaining three hundred and fifty feet followed a well defined vein of barren quartz. This vein shows promise and the level will be advanced on the vein.

It has been estimated that the above mentioned ore body contains 800,000 tons of ore which will assay 2.00 per cent copper.

The advances in underground openings not connected with stoping operations were as follows:

Large Drifts	1207.5 ft.
Small Drifts and Crosscuts	2410. ft.
Raises	1026.5 ft.
Total.....	4644. ft.

Openings driven in connection with stoping operations were as follows:

Small Drifts	1053. ft.
Small Crosscuts	460.5 ft.
Chute Raises	1429. ft.
Stope Raises	649.5 ft.
Stope Drifts	756.5 ft.
Raises	548.5 ft.
Total.....	4897. ft.
Total advance for the year in all classes	9541. ft.

The development program for the future includes sinking two shafts on the Walker Vein.

CONCENTRATING

The mill has operated satisfactorily during the year, and 655.49 tons of ore per day were milled for 362 days. Some minor changes and improvements were made.

The mill statistics for the year were as follows:

Ore delivered to the mill, tons	237,286
Average grade of ore milled, per cent copper	2.9421
Average tails, per cent copper	0.1512
Average recovery, per cent	94.3602
Average grade of concentrates, per cent copper	24.7763
Average grade of ore milled, oz. Silver	1.13
Average grade of ore milled, oz. Gold042
Tonnage of concentrates produced, tons	23,980.5440

During the year we recovered and delivered to the smelter, in the form of ore and concentrates:

Copper, pounds	12,776,038.
Silver, ounces	228,553.57
Gold, ounces	7,692.944

After deductions on smelting contract had been made copper paid for by smelter amounted to 11,879,511 lbs. Cost of producing this copper was 9.485 cents per pound, not including depletion, depreciation or interest, with gold and silver contents credited.

SPRING GARDEN TRAMWAY

The tramway has operated satisfactorily with only the usual minor repairs and replacements. A record of tonnages handled for the year is given below:

Tons dry Concentrates trammed	25,842.3264
Cost per ton Concentrates trammed	1.1511
Tons back freight	1933.7450

The costs for the year were as follows:

Breaking ore	\$1.34812
Cost of producing and trammimg ore	\$0.60698
Cost of milling	\$1.06110
Cost of trammimg concentrates to Spring Garden	\$0.13030
<i>(Calculated on basis of original ore)</i>	
Total operating cost per ton ore with concentrates delivered	
at Spring Garden	\$3.14650
Cost of development per ton of ore broken	\$0.34526
Grand Total.....	\$3.49176

CONSTRUCTION

The new general office and new assay office were completed during the year and a warehouse for heavy machine parts, an inclined tramway to the mill, and a dutch oven, designed to burn saw dust, under the boiler were built.

The two old bunkhouses are being remodeled and one has been plastered.

New fire fighting equipment was added as follows:

An 8000 gallon capacity tank built on a point 125 feet above the concentrator building furnishes high pressure fire protection to the upper part of the mill.

A new pumping plant, fed by the 90,000 gallons of water stored in the 50 ft. Dorr Tank gives additional protection to the lower mill buildings, tram terminal and warehouses.

One 40-gallon, and two 10-gallon Foamite Tanks were purchased and will be installed.

GENERAL

With an increased tonnage of low grade ore from the north ore body the mill can be operated at capacity for the coming year without depleting the ore reserves in the main ore body as rapidly as has been done in the past.

Exploration work in advance of the present face of the sixth level and below the seventh or haulage level should add to the ore reserves during the coming year.

The application made for patents on forty-one mining claims is still pending.

Yours very truly,

WALKER MINING COMPANY,

By H. R. TUNNELL, Manager.

Walker Mining Company

BALANCE SHEET, JULY 31, 1925

ASSETS

FIXED:

Mine, Mining Claims and Development.....	\$1,680,749.36	
Plant and Equipment	1,313,835.05	2,994,584.41

CURRENT:

Supplies on hand and Expenses prepaid	145,193.98	
Ores and Concentrates on hand—at cost	356,707.23	
Accounts Receivable	17,279.29	
Cash	56,211.36	575,391.86
		<u>\$3,569,976.27</u>

LIABILITIES

CAPITAL STOCK:

Common:		
Authorized—1,750,000 shares of \$1.00 each.		
Issued—1,749,308 shares		\$1,749,308.00
Reserve for Depreciation		296,342.58
Notes Payable		999,604.64

CURRENT:

Interest and Taxes accrued	24,501.63	
Accounts and Wages payable	98,892.20	123,393.83

SURPLUS ACCOUNT:

Surplus July 31, 1924	133,461.83	
Net Income of the year ending July 31, 1925	267,865.39	401,327.22
		<u>\$3,569,976.27</u>

We hereby certify that this Balance Sheet shows the financial condition of Walker Mining Company at July 31, 1925, and that the accompanying Income Account for the year ending that date is correct as stated.

POGSON, PELOUBET & Co.,
Certified Public Accountants.

New York, September 10, 1925.

NOTE:—In order to comply with the Government Income Tax Requirements for the purpose of computing depletion additional entries respecting the valuation of the mining property have been recorded upon the books of the Company; but being made for tax purposes only the result of such entries is omitted from the current statements.

Walker Mining Company

INCOME ACCOUNT

YEAR ENDING JULY 31, 1925

Sales of Ore and Concentrates	\$		\$1,526,007.74
Mining and Milling		921,136.29	
Transportation		168,143.65	
Inventory at beginning of year		293,632.44	
		<u>1,382,912.38</u>	
Less, Inventory at end of year		356,707.23	1,026,205.15
			<u>499,802.59</u>
Operating Profit			499,802.59
Depreciation		157,459.40	
Interest		67,748.33	
Interest on Preferred Stock		6,729.47	231,937.20
			<u>267,865.39</u>
Net Income of the year ending July 31, 1925.....			\$ 267,865.39

September 22, 1925

Mr. Paul Billingsley

O F F I C E S

Dear Sir:

During your absence of a year the following events have transpired at the Walker Mine.

In January, 1925 Mr. Greuninger was transferred to South America and Mr. H.R. Funnell, formerly foreman at the Pennsylvania mine in Butte, replaced Mr. Greuninger.

During your last trip to the mine in August, 1924 and prior to that time you recommended raises through the North ore body. Since that time I have at every opportunity urged that those raises be driven as no one can predict the grade or amount of ore in this block without them. Aside from this it will be impossible to do economical mining in the northern section without ventilation. These raises are also necessary to comply with the law regarding safety exits. It seems to me there is a likelihood of the mine inspector insisting on a raise to the surface from this portion of the mine before intensive mining starts.

2- Mr. Paul Billingsley

September 22, 1925

When Mr. Tunnel made his first trip to the mine I was asked to accompany him presumably to tell him what I know of the property for the future. During his stay in Salt Lake Mr. Elton and I went over the situation and explained fully what was necessary to keep the mine and mill operating at capacity on the most economical basis. I spent a week at the mine with Mr. Tunnel going over the same ground until I supposed he understood the problem. I made trips each month until April. During this time I urged that raises be started in the north end and each time Mr. Tunnel agreed to start at least one, sometimes going as far as putting men to work to prepare a starting point, but each time work was stopped before a raise was actually started.

In April I became somewhat perturbed and prevailed on Mr. Elton to make a trip with me. We again went over the situation at the mine and urged more strongly than ever that raises be started. This work was promised but never done.

During the latter part of July Mr. Kelley asked me to accompany Mr. William Daly to the Walker for the purpose of making a report. Mr. Daly saw the crying need of raises on the north end for the same reasons enumerated above and while at the mine strongly urged that at least one be started. Mr. Tunnel again put men to work side swiping to prepare for starting a raise but to date no raise has been started.

During the time Mr. Tunnell has been at the mine the ore above the 300 has been mined, the pillars between the 300

3- Mr. Paul Billingsley

September 22, 1925

and 400 broken and the stopes allowed to cave before the broken ore was completely withdrawn. This has made it necessary to withdraw the miners from this portion of the mine and confines stoping operations to the north end where without necessary ventilation the costs are going to be all out of proportion.

It seems to me that some drastic measure must be taken to get at least one raise through the northern ore body?

Very truly yours,

TL/P

Tom Lyon

11

JKR

UNITED STATES
DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE

WASHINGTON, May 26, 1926.

IN REPLY PLEASE REFER TO

Susanville 06712 "F" JKR

Walker Mining Company : Proof of construction required.

Register,

Sacramento, California.

Sir:

August 4, 1920, the Department approved a map filed by the Walker Mining Company pursuant to the provisions of the act of February 1, 1905 (33 Stat., 628), for easement for reservoir, within the Plumas National Forest, and affecting land within the former Susanville land district.

The act under which this right of way was granted fixes no time for construction, but inasmuch as the act of March 3, 1875 (18 Stat., 482), granting rights of way for railroads and the act of March 3, 1891 (26 Stat., 1095), granting rights of way for irrigation purposes, both provide for forfeiture of any rights not earned by construction within five years from the date of location, five years is

US 000222

Susanville 06712 "F" 222

deemed a reasonable period of time for construction to be shown on the rights herein granted.

No proof of construction has been filed and as the five years has elapsed the grant appears to be subject to cancellation either by voluntary relinquishment or by judicial proceedings instituted for that purpose.

In view hereof you are now directed to notify the grantee that it is allowed 30 days from receipt of notice hereof in which to file in your office proof of construction, relinquish the grant or show cause, if any, why this office should not recommend the institution of judicial proceedings for the forfeiture and cancellation of the grant.

If proof of construction is filed it should be in accordance with the regulations approved June 6, 1908. and in accordance with forms 5 and 6, copy inclosed.

If suit should be instituted and terminate in favor of the Government, the cost thereof will be assessed against the grantee as defendant therein.

Serve notice as herein directed and further notify the grantee that in default hereof or appeal herefrom to

US 000223

Sussexville 06712 WFN JKR

the Secretary of the Interior within the time allowed,
appropriate recommendations will be made by this office
without further notice.

In due time submit report with evidence of
service.

Very respectfully,

William J. ...
Commissioner.

FORMS FOR FILING EVIDENCE OF CONSTRUCTION.

Form 5.

4108
RECEIVED
U. S. LAND OFFICE
SACRAMENTO, CALIF.
JUN 14 1926

State of California.

County of Plumas, ss:

C. de Arrieta, being duly sworn, says that he is the chief engineer of (or was employed to construct) the canals, ditches, laterals, and reservoirs of the Walker Mining Company; that said canals, ditches, laterals, and reservoirs have been constructed under his supervision, as follows: The termini of a canal, ditch, or lateral, and the initial point of the survey of a reservoir should be fixed by reference of course and distance to the nearest existing corner of the public survey, a total length of constructed canals, ditches, and laterals of 0.10 miles, and a total area of constructed reservoirs of 90.24 acres; that construction was commenced on the 1st day of June 1919, and completed on the 30 day of December 1919; that the constructed canals, ditches, laterals, and reservoirs, as aforesaid, conform to the map and field notes which received the approval of the Secretary of the Interior on the 4th day of August 1920.

C. de Arrieta
Chief Engineer

Sworn and subscribed to before me this 7 day of June 1926

Alfred N. Waite
Notary Public.

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Form 6.

Vice-

I, J. O. Elton, do certify that I am the president of the Walker Mining Company; that the canals, ditches, laterals, and reservoirs described as follows (describe as in Form 5) were actually constructed as set forth in the accompanying affidavit of C. de Arrieta, chief engineer (or the person employed by the Company in the premises), and on the exact location represented on the map and by the field notes approved by the Secretary of the Interior, on the 4th day of August 1920; and that the Company has in all things complied with the requirements of the act of Congress March 3, 1891, granting right of way for canals, ditches, and reservoirs through the public lands of the United States.

J. O. Elton
Vice President of the Walker Mining Company.

(Seal of Company.)

Attest:
Whitehead
Secretary.

OFFICE OF
J. B. WHITEHILL
SECRETARY AND TREASURER

WALKER MINING COMPANY

818 KEARNS BUILDING

OFFICERS

J. R. WALKER
PRESIDENT
WM. WRAITH
VICE-PRESIDENT
J. O. ELTON
VICE-PRESIDENT
J. B. WHITEHILL
SECY AND TREAS.

DIRECTORS

J. R. WALKER
WM. WRAITH
J. O. ELTON
J. B. WHITEHILL
S. R. HOWELL
WITCHER WALKER
MAGLIN

RECORDED
INDEXED
JUN 14 1926
SACRAMENTO, CALIF.

SALT LAKE CITY, UTAH, June 12, 1926.
Hour

017019

(Formerly Susan-
ville 06712.)

U. S. Land Office,
Department of the Interior,
Sacramento, California.

Gentlemen:

As requested in your letter of June 3d in regard to the above serial in reference to right of way, we hand you herewith evidence of construction which has been executed on your Forms 5 and 6 received with your letter of June 3d.

We trust that this paper as executed will fulfill all of your requirements. If not, we shall appreciate your telegraphing us at our expense, as it is our desire to comply with all of your requirements and very much regret that there should have been any delay. There was no intention on our part to neglect the matter.

I shall appreciate an acknowledgement from you of this letter and the enclosure.

Yours very truly,

J. B. Whitehill
Secy. & Treas.

J.B.Whitehill
JBW:EB

Encl.

CC- HET

US 000220