MAGMA COPPER
COMPANY

Annual Report
For Year Ended
December 31, 1933
MAGMA COPPER COMPANY

INCORPORATED UNDER THE LAWS OF
THE STATE OF MAINE IN 1910

Main Office:
14 WALL STREET, NEW YORK, N. Y.

Mine Office:
SUPERIOR, ARIZONA

CAPITALIZATION

AUTHORIZED .................. 410,000 shares of $10 par value
OUTSTANDING .................. 408,000 shares of $10 par value

Officers, Directors, Transfer Agent and Registrar on March 16, 1934

OFFICERS

CHARLES F. AYER, President
A. J. McNAB, Vice-President
DAVID E. THOMAS, Vice-President
HENRY E. DODGE, Secretary and Treasurer
GUS A. MRKVICKA, Asst. Secretary and Asst. Treasurer

DIRECTORS

Charles F. Ayer
George B. Alvord
Charles A. Corliss
Henry E. Dodge
A. J. McNab
Francis J. Oakes, Jr.
David E. Thomas

OPERATING OFFICIALS

Wm. Koerner, General Manager
E. G. Dentzer, Asst. General Manager
H. Forsnas, Mine Superintendent
James H. Rose, Smelter Superintendent
Frank Sarver, Purchasing Agent
John R. Mays, Auditor
R. K. Minson, Traffic Manager

TRANSFER AGENT

GUARANTY TRUST COMPANY OF NEW YORK, 140 BROADWAY, NEW YORK, N. Y.

REGISTRAR

BANKERS TRUST COMPANY, 16 WALL STREET, NEW YORK, N. Y.

ANNUAL MEETING

Second Monday in May each year at Augusta, Maine
PRESIDENT'S REPORT

New York, N. Y., March 16, 1934.

To the Stockholders of

Magma Copper Company:

The accompanying report from Mr. William Koerner, General Manager, shows the operations of your Company and of Magma Arizona Railroad Company for the calendar year 1933.

The accompanying report from Mr. H. E. Dodge, Treasurer, shows the consolidated income and expense of Magma Copper Company and Magma Arizona Railroad Company for the calendar year 1933, and the consolidated financial position of these companies as at December 31, 1933, as certified by the auditors.

At the Annual Stockholders' Meeting held May 8, 1933 the entire authorized common stock of the Company, 410,000 shares, without par or face value, was changed into an equal number of shares having a par value of $10.00 each, said change resulting in a change in the stated capital from $7,002,600.87 to $4,080,000.00, and the passing to corporate surplus of $2,922,600.87.

I regret to report the death, on June 5, 1933, of Mr. Walter H. Filor, who served your Company as Director and Vice-President from May 25, 1921 to May 8, 1933, at which time Mr. Filor was seriously ill and no longer physically able to continue in those offices.

At the Annual Meeting of Stockholders held May 8, 1933 Mr. David E. Thomas was elected a Director and at a meeting of the Board of Directors held May 10, 1933 Mr. Thomas was elected a Vice-President of the Company.

No dividend was declared during the year, but dividend No. 45, of 12½ cents per share, declared in December, 1932, was paid January 16, 1933. At the Directors' Meeting held on March 9, 1934 a dividend, No. 46, of 50 cents a share was declared, payable April 16, 1934, to stockholders of record on March 29, 1934.

The average net cost of producing copper, after deducting gold and silver values, was 7.80 cents per pound. This cost includes State and County Taxes (amounting to about .975 cents per pound), depreciation and all other fixed and general expenses. It does not include any allowance for depletion of ore bodies or Federal Income Taxes. The corresponding cost for the year 1932 was 8.33 cents per pound.

The average net selling price received by the Company in excess of all commissions and delivery charges on all of the copper delivered during the year was 6.767 cents per pound.
At December 31, 1933 the Company had on hand 2,664 tons of unsold copper which has since been sold for delivery before March 31, 1934.

In response to the demand of the Federal Trade Commission your Treasurer furnished the Commission with a statement of the payments to officers during the years 1928 to 1932, inclusive. The aggregate of all salaries and all compensation paid by the Company to the officers and directors in 1932 was $27,560.00 and for 1933 was $27,860.00. Your Company has never paid high salaries to its officers nor given them any bonuses. When it was making profits and paying dividends in the year 1930, and prior thereto, it distributed additional compensation at Christmas time to the operating officials at the mine, but none was ever paid to the officers or directors of the Company.

Vice-President McNab, representing your Company, has spent considerable time since last June in preparing data and attending conferences with representatives of other copper producers in New York City and Washington in an endeavor to agree upon a code for the copper industry pursuant to the requirements of the National Recovery Act. Mr. McNab and also the officers and directors have opposed there being in any such code a fixed price below which the copper produced by your Company could not be sold, and also any unreasonable limitation of production by your Company which would necessitate its mining operations being conducted at a loss. It has been the policy of your Company to sell production as soon as marketable and when demand and prices fell it did its fair share to restrict production, having in mind what it believed was for the best interest of the stockholders and also the employees of the Company.

Respectfully submitted,

CHARLES F. AYER,
President.
GENERAL MANAGER'S REPORT

Superior, Arizona, January 12, 1934.

Mr. Charles F. Ayer, President,
Magma Copper Company,
14 Wall Street,
New York, N. Y.

Dear Sir:

I submit the following report on operations of the Magma Copper Company for the year ending December 31, 1933:

PROPERTY

The Company owns 2,369.702 acres of lode mining claims, of which acreage 662.38 acres have been patented; 165.678 acres of mill sites, of which 138.258 acres have been patented; 324.620 acres of patented farm lands; 346.15 acres of patented desert land, and 21 town lots in the First Addition to the Townsite of Superior. The Company purchased the outstanding one-twentieth interest in the Superior North Queen Group and secured patent to the claims in the group. The claims as patented contained 69.191 acres.

MINE

The following is a resume in linear feet of the development done in 1933 and since the Company started operations:

<table>
<thead>
<tr>
<th>Year</th>
<th>Drifting</th>
<th>Raising</th>
<th>Sinking</th>
<th>Cutting</th>
<th>Stations</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1933</td>
<td>5,086</td>
<td>1,093</td>
<td>683</td>
<td>2,139</td>
<td>9,001</td>
<td></td>
</tr>
<tr>
<td>Total to Date</td>
<td>91,578</td>
<td>50,225</td>
<td>17,216</td>
<td>47,778</td>
<td>1,209</td>
<td>208,006</td>
</tr>
</tbody>
</table>

During the year 726 cubic yards of rock were excavated in the cutting of shaft stations and pockets.

The breaking of ore was discontinued in the mine on June 17th. On June 26th most of the mine crew was laid off. With the exception of a few small repair jobs, which were finished the first part of July, only pumping operations were carried on until September 1st. On September 1st a crew of men were put to work placing a concrete lining in certain sections of No. 3 shaft. This crew of men were employed on a full time basis for the remainder of the year. All development work was also started on September 1st on a full time basis. On October 1st repair work in the mine was resumed on a half time basis and continued on that basis until December 4th, when all mine work was placed on a full time basis. On December 20th
all work, with the exception of the work in No. 3 shaft, was suspended during the holidays. On January 2nd, 1934 mining operations were resumed and mine production started.

On the 3200 level a number of crosscuts were driven through the vein. The Crosscuts that showed ore, with their assay values between walls, are as follows:

<table>
<thead>
<tr>
<th>Width Feet</th>
<th>Copper %</th>
<th>Silver Ozs.</th>
<th>Gold Ozs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 16 Crosscut South</td>
<td>43.0</td>
<td>2.1</td>
<td>0.67</td>
</tr>
<tr>
<td>No. 18 Crosscut South</td>
<td>19.8</td>
<td>4.8</td>
<td>0.62</td>
</tr>
<tr>
<td>No. 21 Crosscut South</td>
<td>33.0</td>
<td>2.87</td>
<td>0.303</td>
</tr>
<tr>
<td>No. 25-1/5 Crosscut South</td>
<td>28.6</td>
<td>2.6</td>
<td>0.48</td>
</tr>
<tr>
<td>No. 27-3/5 Crosscut South</td>
<td>39.9</td>
<td>4.3</td>
<td>0.67</td>
</tr>
<tr>
<td>No. 31-3/5 Crosscut South</td>
<td>11.9</td>
<td>3.3</td>
<td>0.47</td>
</tr>
</tbody>
</table>

If some of the lower grade vein material on the walls of some of these crosscuts is eliminated the assay value of the ore in the crosscuts that will be mined are as follows:

<table>
<thead>
<tr>
<th>Width Feet</th>
<th>Copper %</th>
<th>Silver Ozs.</th>
<th>Gold Ozs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 16 Crosscut South</td>
<td>12.8</td>
<td>3.8</td>
<td>1.73</td>
</tr>
<tr>
<td>No. 18 Crosscut South</td>
<td>19.8</td>
<td>4.8</td>
<td>0.62</td>
</tr>
<tr>
<td>No. 21 Crosscut South</td>
<td>15.7</td>
<td>4.96</td>
<td>0.506</td>
</tr>
<tr>
<td>No. 25-1/5 Crosscut South</td>
<td>8.2</td>
<td>6.1</td>
<td>1.35</td>
</tr>
<tr>
<td>No. 27-3/5 Crosscut South</td>
<td>30.0</td>
<td>4.9</td>
<td>0.85</td>
</tr>
<tr>
<td>No. 31-3/5 Crosscut South</td>
<td>11.9</td>
<td>3.3</td>
<td>0.47</td>
</tr>
</tbody>
</table>

These crosscuts are all through the vein located to the east of the main crosscut north of No. 5 shaft. The length of the ore shoot as determined by the crosscuts is approximately 1300 feet. It has not, however, been determined if the ore shoot is continuous between crosscuts. The mineral in the ore shoot as exposed by crosscuts No. 16 and No. 18 is chalcopyrite and pyrite. There is no bornite. This is the same mineralization as appears on the 2800 and 3000 levels directly above the crosscuts. The minerals occur in siliceous vein material. Crosscuts No. 25-1/5, No. 27-3/5 and No. 31-3/5 show the predominating mineral to be bornite with some chalcopyrite and pyrite. The vein material is altered diabase, and the bornite occurs in narrow stringers and disseminated through it.

On the 3000 level, No. 5 shaft, the main crosscut north was driven a distance of 880 feet north of No. 5 shaft. It intersected the Magma Vein 850 feet north of No. 5 shaft. The crosscut intersected the vein at the junction of a fault and a faulted segment of the vein. The segment was to the west of the fault and had a width of about 10 feet of good bornite ore. This segment was drifted on for 100 feet west when it was cut off by another fault, which displaced the ore about 150 feet to the south where it was picked up by a drift
driven from the main crosscut north about 120 feet west of the main crosscut. This segment also showed bornite ore, but its extent has not yet been determined. At the point where the main crosscut north intersected the vein and the first fault mentioned above a drift was started and driven along the fault in a northeasterly direction a distance of 200 feet, when the vein was encountered. The vein was drifted on to the east and showed continuous ore for about 300 feet. The ore was the full width of the drift, and the minerals were bornite and chalcopyrite. From the end of the ore the drift was continued to the east for 200 feet along the fissure, which was narrow and showed only bunches of low grade ore. The fissure then widened out and made good chalcopyrite ore, which was the ore of the main Magma ore body. A drift was also driven west on the 3000 level from the main crosscut joining No. 2 shaft and No. 3 shaft. The drift was driven mostly in the vein, which for the first 1000 feet west was low grade and showed no commercial ore. The main ore body was then encountered at 14-2/5 crosscut and driven on for 750 feet when connection was made with the drift driven east from the main crosscut north of No. 5 shaft. Crosscuts driven through the vein in the main ore shoot that showed ore, with their assay values, are as follows:

<table>
<thead>
<tr>
<th>Width Feet</th>
<th>Copper %</th>
<th>Silver Ozs</th>
<th>Gold Ozs</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 14-2/5 Crosscut South...........</td>
<td>6.2</td>
<td>3.5</td>
<td>0.85</td>
</tr>
<tr>
<td>No. 16 Crosscut South.............</td>
<td>14.1</td>
<td>4.8</td>
<td>0.50</td>
</tr>
<tr>
<td>No. 19 Crosscut South.............</td>
<td>12.2</td>
<td>4.0</td>
<td>1.16</td>
</tr>
</tbody>
</table>

The mineral in the vein in the main ore shoot is all chalcopyrite and pyrite. The ore as drifted on appears better on the whole than that exposed by the crosscuts. The main ore shoot on the 3000 level should mine 5% ore for a width of 12 feet and a length of 750 feet.

On the 3000 level a drift was also driven east from the main crosscut joining No. 2 shaft and No. 3 shaft a distance of 296 feet, and from the end of this drift East No. 3 Crosscut South was driven through the vein. The vein was about 9 feet wide and assayed about 1.26% copper.

On the east 2550 level development work was carried on continuously while the mine was in operation during the year. The East Drift was driven a distance of 1223 feet and connected with East 43 Winze and No. 6 shaft. These connections have improved ventilation in the east section of the mine, and development work is now being actively carried on there by diamond drilling and crosscutting. One diamond drill hole was drilled from the east drift horizontally through the vein at a point approximately 3050 feet east of the main crosscut joining No. 2 shaft and No. 3 shaft. The core obtained from this hole through the vein for a width of 18 feet assayed 2.5% copper, 2.5% lead, 8.9% zinc, 1.13 oz. silver, and 0.024 oz. gold.
Sinking was carried on in two winzes. Two thousand east 43 winze was sunk 274 feet to the east 2550 level. Twenty eight hundred west 14 winze was sunk 409 feet to the 3200 level. This winze was sunk in the hanging wall of the vein to provide ventilation for the 3200 level.

Stoping operations were carried on satisfactorily during the year. Ore was mined from the 1900 level to the 2800 level. The grade of the ore mined was somewhat higher than in previous years.

CONCENTRATOR

Milling operations were discontinued June 26th and the mill put on a watchman basis until October 1st. From October 1st to January 2, 1934 mill employees were employed on a half time basis doing repair work and milling the ore as it accumulated from development work.

The mill heads for the year averaged 7.37% copper. The tailings averaged 0.38% copper. The average recovery was 97.23% copper. The mill recovery is getting poorer each year on account of oxidation of the ore due to long shut downs.

SMELTER

Smelter production ceased on June 18th, and the smelter was placed on a watchman basis until October 1st. On October 1st repair work was started at the smelter. The smelter crew worked on a half time basis and the mechanical crew on a full time basis for the remainder of the year. On December 21st fire was started in the reverberatory furnace, and the furnace was in shape by the end of December to receive charge for smelting.

PRODUCTION

The Magma Mine produced during the year a total of 145,425 tons of all classes of ore. This ore averaged 7.92% copper, 3.62 ounces of silver, and 0.35 ounces of gold. Leasers mined during the year from the Superior Mine 7,441 tons of siliceous gold ore, assaying 0.36% copper, 1.25 ounces of silver, and 0.677 ounces of gold. There was purchased from shippers and treated at the smelter 2,720 tons of ore and concentrates. The smelter metal production for the year, after deducting all losses, including refinery, was as follows:

<table>
<thead>
<tr>
<th></th>
<th>Lbs. Copper</th>
<th>Ozs. Silver</th>
<th>Ozs. Gold</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Magma Mine ..........</td>
<td>19,628,135</td>
<td>473,384.27</td>
<td>4,597.301</td>
</tr>
<tr>
<td>From other sources ......</td>
<td>84,983</td>
<td>51,594.12</td>
<td>6,657.725</td>
</tr>
<tr>
<td>Total ...................</td>
<td>19,713,118</td>
<td>524,978.39</td>
<td>11,255.026</td>
</tr>
</tbody>
</table>
MAGMA ARIZONA RAILROAD

For the first six months of the year, and the last four months of the year, the railroad operated one mixed passenger and freight train a week between Superior and Magma. During July and August a mixed train was run whenever the accumulation of freight warranted the operation. This was about twice a month. On the other days during the week, excluding Sundays, a gasoline car handled the mail, express, and passengers.

The railroad handled 23,337 tons of inbound freight and 10,104 tons of outbound freight during the year.

GENERAL

During the year 668 vertical feet of No. 3 shaft was lined with concrete.

Two centrifugal pumps, with a capacity of 500 gallons of water per minute against a head of 1100 feet, were installed in the mine. One of these pumps was installed on the 2550 level pump station and the other on the 1600 pump station.

A double inlet fan, with a capacity of approximately 38,000 cubic feet of air per minute, was installed on the 3200 level of the mine.

I wish to express my appreciation and thanks to all the employees of the Company who have assisted in operations during the past year.

Respectfully submitted,

WILLIAM KOERNER,
General Manager.
TREASURER'S REPORT

New York, N. Y., March 16, 1934

To the Stockholders of

MAGMA COPPER COMPANY:

For my report as Treasurer I hereby submit consolidated statements of Magma Copper Company and Magma Arizona Railroad Company as follows:

Consolidated Balance Sheet as at December 31, 1933.

Consolidated Income and Expense Statement and Consolidated Earned Surplus Account for the year ended December 31, 1933.

In the month of April, 1933 a complete settlement of all matters relating to Pinal County property taxes for the years 1930, 1931 and 1932 was effected. This resulted in a further credit to Earned Surplus Account in the amount of $45,193.13, which has been re-established in the accounts as relating to prior years.

Respectfully submitted,

H. E. DODGE,
Treasurer.
TREASURER'S

Magma Copper Company and
CONSOLIDATED BALANCE SHEET

**ASSETS**

<table>
<thead>
<tr>
<th>Asset Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASH</td>
<td>$1,057,195.78</td>
</tr>
<tr>
<td>ACCOUNTS RECEIVABLE</td>
<td>316,889.53</td>
</tr>
<tr>
<td>ACCRUED INTEREST RECEIVABLE ON MARKETABLE SECURITIES</td>
<td>5,102.18</td>
</tr>
<tr>
<td>INVENTORIES:</td>
<td></td>
</tr>
<tr>
<td>Copper—at Contract Sales Prices</td>
<td>$640,216.27</td>
</tr>
<tr>
<td>Metals in Process—at Cost</td>
<td>$47,607.19</td>
</tr>
<tr>
<td>Ores and Concentrates—at Cost</td>
<td>$116,381.47</td>
</tr>
<tr>
<td>Materials and Supplies—at Cost</td>
<td>$258,432.08</td>
</tr>
<tr>
<td>MARKETABLE SECURITIES (Market Value December 31, 1933)</td>
<td></td>
</tr>
<tr>
<td>U. S. Government Bonds—at Cost</td>
<td>$129,905.64</td>
</tr>
<tr>
<td>Bonds and Stocks of Domestic Corporations—at Cost</td>
<td>$2,279,606.13</td>
</tr>
<tr>
<td>TOTAL CURRENT ASSETS</td>
<td>$4,721,430.63</td>
</tr>
<tr>
<td>MARKETABLE SECURITIES (Market Value December 31, 1933—$1,911,960.00):</td>
<td></td>
</tr>
<tr>
<td>U. S. Government Bonds—at Cost</td>
<td>$129,905.64</td>
</tr>
<tr>
<td>Bonds and Stocks of Domestic Corporations—at Cost</td>
<td>$2,149,700.49</td>
</tr>
<tr>
<td>TOTAL CURRENT ASSETS (Total Current Assets including Marketable Securities at Market Value December 31, 1933—$4,353,784.50)</td>
<td>$4,721,430.63</td>
</tr>
<tr>
<td>PINAL COUNTY (ARIZONA) WARRANTS AND ACCRUED INTEREST</td>
<td>$212,303.08</td>
</tr>
<tr>
<td>INVESTMENTS—Apache Powder Company, etc.</td>
<td>$10,200.00</td>
</tr>
<tr>
<td>PREPAID INSURANCE AND OTHER DEFERRED CHARGES</td>
<td>$41,523.89</td>
</tr>
<tr>
<td>PROPERTY ACCOUNTS:</td>
<td></td>
</tr>
<tr>
<td>Mining Claims, Development and Land</td>
<td>$1,004,378.82</td>
</tr>
<tr>
<td>Mine and Mill Machinery, Buildings, Equipment, etc.</td>
<td>$2,553,928.00</td>
</tr>
<tr>
<td>Smelter</td>
<td>$2,431,800.49</td>
</tr>
<tr>
<td>LESS—Depreciation</td>
<td>$4,985,728.49</td>
</tr>
<tr>
<td>Standard Gauge Railroad—less Depreciation of Roadway and Equipment</td>
<td>$223,519.19</td>
</tr>
<tr>
<td></td>
<td>$3,144,805.79</td>
</tr>
<tr>
<td>TOTAL PROPERTY ACCOUNTS</td>
<td>$8,130,263.39</td>
</tr>
</tbody>
</table>

**CERTIFICATE**

TO THE BOARD OF DIRECTORS,
Magma Copper Company,
14 Wall Street, New York, N. Y.

We have made an examination of the Consolidated Balance Sheet of Magma and of the Consolidated Statement of Income and Earned Surplus for the year 1933, and other supporting evidence and obtained information and explanations from officers methods and of the operating and income accounts for the year. The Balance Sheet has not been adjusted in respect to depletion on the net. In our opinion, based upon such examination, the accompanying Balance Sheet with accepted principles of accounting consistently maintained by the Companies during consolidated results of operations for the year.

New York, N. Y., March 2, 1934.
REPORT

Magma Arizona Railroad Company

AS AT DECEMBER 31, 1933

LIABILITIES

Accounts Payable and Unpaid Wages .................... $ 68,922.64
Accrued Taxes ........................................ 110,048.12
Dividends Unclaimed ................................... 238.75

Total Current Liabilities ......................... $ 179,209.51

Reserve for Casualty Insurance ......................... 1,497.90

Capital and Surplus:
Capital:
Authorized—410,000 shares — Par Value
$10.00 per share........ $4,100,000.00

Issued—408,155 shares ......................... $4,081,550.00
Less—155 shares held in Treasury... 1,550.00

408,000 shares ......................... $4,080,000.00

Capital Surplus ................................... 2,922,600.87

Earned Surplus ................................... 946,955.11

$7,949,555.98

$8,130,263.39

OF AUDITORS

Copper Company and Magma Arizona Railroad Company as at December 31, 1933,
in connection therewith, we have examined the accounting records of the Companies
and employees of the Companies; we also made a general review of the accounting
book value of the mining claims and development,
and related Statement of Income and Earned Surplus fairly present, in accordance
the year under review, the consolidated position at December 31, 1933, and the

BARROW, WADE, GUTHRIE & CO.
Accountants and Auditors.
MAGMA COPPER COMPANY AND MAGMA ARIZONA RAILROAD CO.

CONSOLIDATED INCOME AND EXPENSE STATEMENT FOR THE YEAR ENDED DECEMBER 31, 1933

SALES OF COPPER ........................................ $1,237,676.12

Cost of Sales:

Inventory of Metals, Ores and Concentrates — January 1, 1933 .................. $ 379,426.92
Operating Expenses .................. $1,518,095.17
Depreciation .................. 273,843.97
State, County and Other Taxes 205,329.64

$1,997,268.78

Less — Gold and Silver Sales .. 419,723.01 1,577,545.77

$1,956,972.69

Inventory of Metals, Ores and Concentrates — December 31, 1933 .................. 804,204.93 1,152,767.76

$ 84,908.36

General, Administrative and Engineering Expenses .................. 71,166.38

$ 13,741.98

Interest and Other Income .................. 35,904.89

$ 49,646.87

Railroad Operating Income .................. $ 82,341.17
Railroad Operating Expense .................. $ 82,434.69

Depreciation — Roadway and Equipment .................. 43,783.20 126,217.89 43,876.72

Net Profit for the year .................. $ 5,770.15

CONSOLIDATED EARNED SURPLUS ACCOUNT

For the Year Ended December 31, 1933

Balance — January 1, 1933 .................. $897,035.38

Add:

Adjustment on account of prior years taxes .. $45,193.13
Net Profit for the year 1933, before providing for Depletion .................. 5,770.15 50,963.28

$947,998.66

Deduct:

Additional Federal Income Taxes — prior years .................. $ 3,043.55
Less — Estimated Reserve provided at December 31, 1932 .................. 2,000.00 1,043.55

$946,955.11

Balance — December 31, 1933 ..................