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Arizona Department of Mines and Mineral Resources Mining Collection

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03/02/90

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: MINERAL RESERVE MILL

ALTERNATE NAMES:

COCHISE COUNTY MILS' NUMBER: 593

LOCATION: TOWNSHIP 24 S RANGE 27 E SECTION 13 QUARTER SE
LATITUDE: N 31DEG 20MIN 57SEC LONGITUDE: W 109DEG 33MIN 35SEC
TOPO MAP NAME: DOUGLAS - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
TUNGSTEN

BIBLIOGRAPHY:

DALE, V.B., ET.AL., 1960, USBM RI 5650,
P. 61 & 63
ADMMR MINERAL RESERVE MILL FILE

REPORT OF MILLS - SOUTHERN DISTRICT

Axel L. Johnson, Field Engineer

July 24, 1957

DOUGLAS TUNGSTEN MILL - (now called Mineral Reserve)

TUNGSTEN

David McConnell, Mineral Reserve Mill, 9th St. and Pan American Ave.,
Douglas, Ariz., (may have reverted back to former owners, the
International Metals Corp., 2423 E. Belt St., San Diego, Calif.)

Mill, which treated Mexican ores exclusively, has been closed down since
early this spring. Reason - domestic buyers would not purchase the
concentrates, on acct. of the high molybdenum content. (See reports
of Douglas Tungsten mill of 1/10/57 and 5/7/57).

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Douglas Tungsten Mill
(recently called "Mineral Reserve Mill")
District Cochise County, Arizona

Date May 7, 1957

Engineer Axel L. Johnson

Subject: Present Status. Information from Jim Marino and personal visit.

References Report of Jan. 10, 1957
Report of May 3, 1956
Report of Jan. 6, 1956

Location In Douglas, Arizona on West Ninth Street.

Owners Mineral Reserve Co. is owned and operated by David McConnell and two partners. This company executed a "Lease Purchase" agreement, (executed on Dec. 3, 1956), for the purchase of the mill owned by International Metals Corp., 2423 E. Belt St., San Diego, Cal. Since the Mineral Reserve Co. has been unable to sell their tungsten concentrates on account of the high molybdenum content, it is expected that the ownership of the mill and milling equipment will revert back to the former owners, International Metals Corp.

Principal Minerals Tungsten in the form of scheelite.

Present Milling Activity None. Mill is idle.

Reason for closing of the mill Mr. Marino reports that the high grade Mexican scheelite and also the Mexican concentrates purchased from Mexico contained a large excess of molybdenum, and the various milling operations ~~attempted~~ failed to remove this molybdenum. Consequently, the Mineral Reserve Co. was unable to sell this scheelite concentrate to U. S. ~~max~~ tungsten users.

Proposed Plans Mr. Marino reports that the Mineral Reserve Co. is now planning on constructing a chemical plant to manufacture synthetic scheelite on a site adjacent to the International Metals Corp. plant, (9th St. and Pan American Ave., Douglas). Mr. Marino reports that they intend to treat their present Mexican source of supply in this chemical plant, manufacturing synthetic scheelite, which will be free from any molybdenum or any other impurities.

K₇

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Douglas Tungsten Mill
(now called "Mineral Reserve Mill")

Date Jan. 10, 1957

District Cochise County, Arizona.

Engineer Axel L. Johnson

Subject: Change of owners and operators and change of policy.

References: See report of Jan. 6, 1956, and May 3, 1956. The proposed tungsten concentrate reducing plant to produce refined tungsten of 99.8 %, as mentioned in the report of May 3, was never constructed.

Location In Douglas, Arizona, on West Ninth Street.

Owners "Mineral Reserve", 9th St. and Pan American Ave., Douglas, Ariz.

Company owned by David McConnell and two partners.

Mineral Reserve reported as having purchased the mill from the former owners, International Metals Corporation, 2423 E. Belt St., San Diego, Calif. by means of a "Lease Purchase" agreement, executed on Dec. 3, 1956.

Operators Plant operated by the Mineral Reserve Co.

David McConnell is the manager and plant superintendent.

Principal Minerals milled Tungsten ores and concentrates~~##~~ from Mexico.

Present Milling Activity Milling high grade hand picked Mexican tungsten ore, running about 20 % WO_3 , and also Mexican tungsten concentrates, running 20 % WO_3 and up. Mr. McConnell reports commitments to mill the ore and concentrates from several Mexican producers. Mr. McConnell states that his company will not handle domestic ores, except for purchase at World market prices, as the General Services Administration will not accept ores or concentrates from a plant which is not operated exclusively on domestic ores.

Mr. McConnell also reports that they are making repairs and changes on the mill, putting in new trommel screens, etc.

Type of Mill, Mill Capacity, Milling Equipment - See report of Jan. 5, 1956.

Milling Rates Will not do custom milling for domestic producers.

Direct Purchase of Ores and Concentrates. Company is now purchasing hand picked Mexican ~~concentrates~~^{ores} of 20 % and also Mexican concentrates of 20% and up by direct purchase. Amount paid for same not stated. Mr. McConnell states that he has a contract with a company in New York City to buy his product.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Douglas Tungsten Mill
(also called International Metals Mill)
District Cochise County, Arizona.

Date Jan. 6, 1956
Engineer Axel L. Johnson

Subject: Field Engineer's Report. Personal visit & information from Dave McConnell.

Location In Douglas, Arizona ----- on West Ninth Street

Owners International Metals Corporation, 2423 E. Belt St., San Diego, Calif.

Operators Same as above.

Officers Dave McConnell, Plant Supt., 1116 "E" Street, Douglas, Ariz., Tel. EM 4-2818
Anthony C. Martinolich, President.

Type of Mill Clean-up mill for concentrating lower grade tungsten concentrates to government specifications.

Mill Capacity Mill will handle approximately 10 tons of concentrates per day.

Milling Equipment

(1) A dry crushing unit, consisting of 2 tandem impact mills, with grizzlies and screens. These grind to a minimum of 200 mesh.

(2) 2 wet tables. These were manufactured in San Diego, Calif., and are Overstrom tables with Economy decks.

(3) 6 Flotation Cells. These were manufactured in Los Angeles, Calif., and redesigned especially for the treatment of tungsten concentrates. Reagents used differ for each kind of ore treated.

(4) 1 Magnetic Separator. This is 25 H. P, and 125 volts-50 amperes.

(5) 1 Electrostatic Table.

(6) 1 Acid Leaching Tank. This is a revolving tank of 4 ton capacity, used for leaching out copper and lead from the concentrates.

(7) 1 Roaster. This is 1 ton per hour capacity, and used for magnetizing the sulphides prior to magnetic separation. It is also used, to some extent, to prepare the concentrates prior to leaching.

Present Milling Operations Operators will clean up and up-grade concentrates, and also hand picked ore running over 10 %, concentrateing same to Government specifications. At present, the company is handling only Mexican tungsten ores and concentrates. However, as soon as the G. S. A. Domestic Buying Program is finished (about June, 1956), they will also handle domestic tungsten ores and concentrates. The charges for cleaning and up-grading are as follows: (also see attached schedule of charges).

(1) \$50.00 per ton for up-grading all sub-grade concentrates.

(2) \$ 3.75 per unit for assaying, shipping, blending, sacking, certifying, etc.

(3) Deductions for impurities that can not be removed by the milling operations.

Direct Purchase of Concentrates Operators will buy concentrates for direct sale, without up grading same, if they are up to specifications, or nearly so. (60% with not too much impurities). The World Market Price will be paid for same, minus the \$ 3.75 per unit handling charge and penalty deductions.

Duties Import duty on Mexican tungsten ores and concentrates is reported to be \$ 7.92 per unit of W. A U. S. broker charge of \$ 0.33 per unit is added.

The Mexican tax, imposed by the Mexican government is about \$8.00 per unit of WO₃

INTERNATIONAL METALS CORPORATION

DOUGLAS, ARIZONA

ANTHONY C. MARTINOLICH
PRESIDENT

EMPIRE 4-2818

The International Metals Corporation has just completed one of the finest and most complete clean-up plants in the Western States. We are here to serve your industry.

This plant is equipped with complete grinding units for running batch material or lots. Our facilities include acid treatment, magnetic separation, static separation, roasting, flotation, and table concentration; also a completely automatic sampling unit, clean circuit and all steel bins.

So that you may have a better understanding of our operation, we are enclosing for your information an outline of our Tungsten Concentrate Buying Program.

EXPLANATION OF CONCENTRATE BUYING PROGRAM

The producer will receive the World Market Price quoted for the day on which his concentrates are received.

Producers of Tungsten concentrates realize that penalties take away more of their profit than any other hazard in mining. When up-grading ore in our modern plant, most of these penalties are removed. No charge is made for penalties such as Copper, Lead, etc., until after we have used our complete facilities to eliminate as many of these as possible. On all of our shipments we are charged for the penalties, and in turn, the charges must be passed on to the producer.

As the producer knows, it is very difficult to make a grade material on wet tables without suffering a high loss in values. Up-grading concentrates is for your benefit . . . since you will now be able to ship a lower grade concentrate than 60% and make a higher recovery. The \$50.00 per ton for cleaning concentrates is relatively small to the tons that you mine and mill. One ton of concentrates usually equals approximately 50 to 100 tons of ore. Therefore, if you make a lower concentrate, it will pay you to use our facilities to up-grade them. By guaranteeing top-grade shipments to our purchasers, we are able to quote you, the producer, a higher buying price.

If the miner is able to produce penalty free or small penalty grade material, he may sell direct to us with only the \$3.75 per unit handling charge, plus any penalty charge there might be.

Of the \$3.75 per unit handling charge, \$3.00 is for certifying the material, sacking, blending and accurate weighing so that the consumer of our product will know that he is receiving a top grade material, 75c of the charge is for our shipping costs, insurance, etc.

All tailings from our plant are automatically sampled and must balance according to good metallurgical practice.

International Metals Corporation will advance U. S. Customs or In-Bond concentrates and reduce from price paid producer. The producer is to pay all transportation charges on concentrates to our plant.

We of International Metals Corporation are here to be of service to your industry. Feel free to call on us at any time. It will be our pleasure to answer any questions or give information to help you in your production of Tungsten.

Very truly yours,

INTERNATIONAL METALS CORPORATION

Anthony Martinolich
President

INTERNATIONAL METALS CORPORATION

DOUGLAS, ARIZONA

ANTHONY C. MARTINOLICH
PRESIDENT

EMPIRE 4-2818

TUNGSTEN CONCENTRATE BUYING PROGRAM

**ALL TUNGSTEN CONCENTRATES WILL BE BOUGHT AT WORLD MARKET PRICE,
QUOTED FROM E.M.J. (Engineering Mining Journal) MARKET PRICE.**

DEDUCTIONS FROM BASE UNIT PRICE

| | |
|------------|------------------------------|
| COPPER | % EACH .01% ABOVE .05% @ .10 |
| MOLYBDENUM | % EACH .10% ABOVE .10% @ .10 |
| SULPHUR | % EACH .10% ABOVE .10% @ .10 |
| PHOSPHORUS | % EACH .01% ABOVE .05% @ .10 |
| ZINC | % EACH .01% ABOVE .05% @ .10 |
| BISMUTH | % EACH .01% ABOVE .05% @ .10 |
| TIN | % EACH .01% ABOVE .05% @ .10 |
| LEAD | % EACH .01% ABOVE .05% @ .10 |
| ARSENIC | % EACH .01% ABOVE .05% @ .10 |
| ANTIMONY | % EACH .01% ABOVE .05% @ .10 |

\$3.75 per unit for assaying, shipping, blending, sacking, and certifying a grade product from our plant.

\$50.00 per ton for up-grading all sub-grade concentrates.

The above quoted penalties will be assayed and deducted after material has been up-graded at our plant.

When 60% WO_3 concentrates are purchased without up-grading, the producer will only be charged the above-quoted penalties, plus the \$3.75 per unit handling charge.

NOTE: All concentrate ores f.o.b. our plant.

Above is subject to change and alteration.

8/1956
MIN WORLD
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Anthony C. Martinolich
2423 E. Belt St.
San Diego, Calif.

(formerly Douglas Mill)
(International Metals)

ALJ

Leverett Davis, Consulting Engineer,
100 West 9th Street, P. O. Box 1007, Douglas,
Ariz. reported that he is using the Douglas Tungsten
Mill at the above address for chemical and labora-
tory tests.

ALJ 2-12-59

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine International Metals Corp. Mill

Date Sept. 8, 1955

District At Douglas, Cochise Co.

Engineer Axel L. Johnson

Subject: Mine Report. Information from David McConnell. No personal visit.

Location On 9th Street, west side of the tracks, at the old foundry----Douglas, Ariz.

Owners International Metals Corp., 2423 E. Belt Street, San Diego, Calif.

Operators Will be same as above. Mill construction started about 2 weeks ago. Mill is expected to be finished and ready for operation in about 3 months.

Officers David McConnell, Mill Superintendent. Mr. McConnell was formerly mill superintendent for the White Mountain Mining and Milling Co. at their mill near the Morning Star mine. (See report of the Morning Star mine under date of Sept. 2, 1954.)

Minerals to be milled The mill is being constructed to treat Mexican ores ~~exclusively~~ and concentrates exclusively. Most of the Mexican ores is expected to be tungsten, but other Mexican ores will also be milled if the demand requires. A considerable amount of Mexican tungsten concentrates will be upgraded to meet current specifications.

Mill capacity 50 tons of ore in 24 hrs in one unit.
10 tons of concentrates per 24 hrs. in a separate unit.
Milling to be carried on simultaneously.

Milling Equipment Milling equipment is being moved in from the dismantling of a mill near Hawthorne, Nev., and also milling equipment from the Green River District in Utah. Milling equipment will consist of the following:

- (1) Two separate grinding units----one dry unit for McConnell Separators and Magnetic Separators, and one wet unit for wet tables, flotation, and acid leaching.
- (2) Roasting equipment for ores requiring roasting.
- (3) 2 Wet Tables
- (4) 3 McConnell Separators.
- (5) 1 or more Magnetic Separators.
- (6) 6 Flotation Cells---- 3 roughers and 3 finishers.
- (7) Equipment for Acid leaching.

Remarks On account of the large amount of equipment to be installed, it is doubtful if the mill will be finished and get into operation before some time next year.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

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Date Jan. 6, 1956
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STATE OF ARIZONA

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Subject: Present Status. Information from Jim Marino and personal visit.

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Principal Minerals Tungsten in the form of scheelite.

Present Milling Activity None. Mill is idle.

Reason for closing of the mill Mr. Marino reports that the high grade Mexican scheelite and also the Mexican concentrates purchased from Mexico contained a large excess of molybdenum, and the various milling operations ~~attempted~~ failed to remove this molybdenum. Consequently, the Mineral Reserve Co. was unable to sell this scheelite concentrate to U. S. ~~xxx~~ tungsten users.

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