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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: OMEGA

ALTERNATE NAMES:  
OMEGA EXTENSION

PIMA COUNTY MILS NUMBER: 182

LOCATION: TOWNSHIP 18 S RANGE 15 E SECTION 24 QUARTER SE  
LATITUDE: N 31DEG 51MIN 02SEC LONGITUDE: W 110DEG 45MIN 32SEC  
TOPO MAP NAME: SAHUARITA - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:  
COPPER SULFIDE  
SILVER SULFIDE  
LEAD SULFIDE  
ZINC SULFIDE  
GOLD LODE  
MANGANESE NODULES

BIBLIOGRAPHY:  
S.B. KEITH, AZBM BULL. 189, P. 127, 1974  
USGS BULL. 582, P. 115-117  
AZ. MINING JOURNAL, JUNE 1918, P. 42 &  
12/1/22, P. 18  
ADM MR OMEGA MINE FILE  
ADM MR "U" FILE CU 12

OMEGA MINE

REFERENCES

PIMA COUNTY

USGS Bul. 582, p. 115 to 117

Arizona Mining Journal, June 1918, p. 42, December 1, 1922, p. 18

ABM Bull. 189, p. 127

USGS OPEN FILE Report Copper Deposits of a part of the Helvetia Mining District

MILS Sequence Number 0040190339

and the United States location monument No. 1 is located on the Omega First Extension claim.

The property comprises two claims, the Omega and Omega Extension. It belongs to the Zickendorf, who have owned it since the early eighties. Up to 1900 they had shipped 2,000 tons of ore. It is said to be one of the oldest producing properties in Pima County as the first copper produced in any considerable quantity in the county came from this mine in 1854. Its early owners are said to

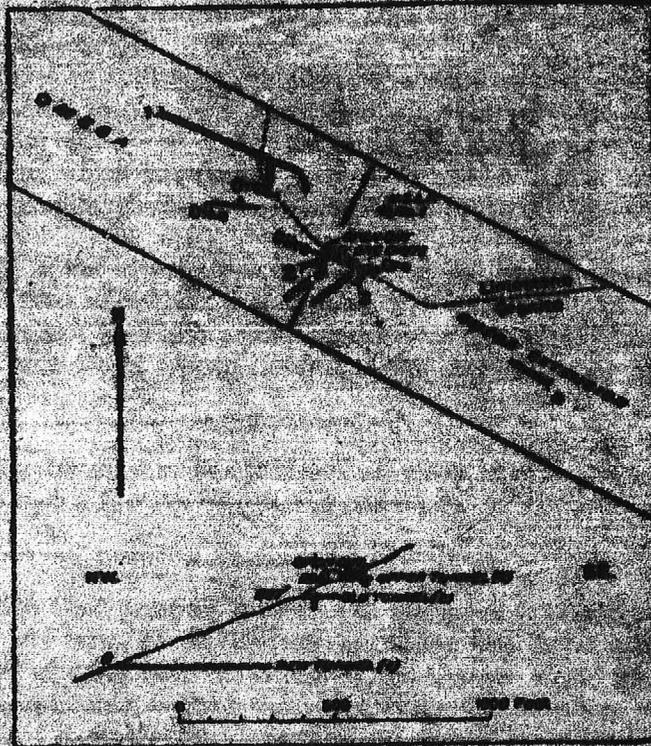


FIGURE 2.—Plan and longitudinal projection of workings of Omega mine.

have had a miller at Halvella in the late seventies. It was a producer and shipper of ore in 1907.

It is developed by four levels, a shaft, a winze, an adit and the miller openings aggregating nearly 3,000 feet of work, comprising a vertical range of 800 feet and distributed as shown in figure 2.

The mine is on a faulted contact of coarse granite intruded into the Patagonic limestone. The limestone, which is in part fossiliferous, is much crystallized, and otherwise altered, is usually argillaceous and near the contact dips 30° NE. The granite for a distance of nearly 100 feet from the contact is altered and altered and contains

*Geol. Surv. Bull. 582*

subordinate faults dipping in all directions, especially to the north and to the south. At the joints occur much limonite, manganese oxide, and mica. Aplite dikes are also intruded along the contact between the granite and the limestone in places, as shown by extensive croppings and in tunnels 3 and 4.

The ore is mostly a soft earthy mixture of copper and iron sulphides, with the manganese, copper, and iron-ore minerals of the oxidized zone. In the upper tunnel, however, at the ore chute, occurs a lens of almost pure massive pyrite and chalcopyrite, which in places is coated with limonite.

In the 118-foot drift that extends to the south on the contact in tunnel 1 there is said to be a 2-foot vein of pyrite and chalcopyrite with gouge on either wall, and at the face of the drift, next to a very siliceous dike, which is probably an aplitic rock, occurs a band of epidotized granite 10 feet wide containing considerable pyrite and chalcopyrite.

Tunnel 2, in the easterly part of its course just beyond the chute, traverses a zone of faulted and crushed crystalline and partly epidotized limestone in which occurs considerable soft earthy ore, apparently a mixture of copper carbonates and sulphides with pyrite.

#### OTHER PROSPECTS.

Among the dozen or more additional prospects in or near the Helvetia camp only a few can be referred to here.

#### INDIAN CLUB.

The Indian Club prospect is located in the gulch southeast of the Copper World mine, about 700 feet east of the Isle Royal mine, at an elevation of 4,940 feet. It is east of the Copper World alaskite aplite dike, in altered, faulted, sheared, and crushed limestone which dips about 45° N, and which along the displacement zones is silicified but elsewhere crystalline.

The prospect is opened by a 40-foot and an 80-foot tunnel, shallow shafts, winzes, and cuts on two or more levels. It produced some surface ore in the early days, mostly from the upper workings, much of which was a high-grade pulverulent mixture of copper carbonates and chalcocite.

#### PILOT CLAIM.

The Pilot claim joins the Indian Club on the north and is opened principally by a 70-foot shaft in silicated altered limestone, in which the ore occurs in veinlets containing chalcocite and copper oxides. Open cuts on the claim have produced some rich carbonate ores.

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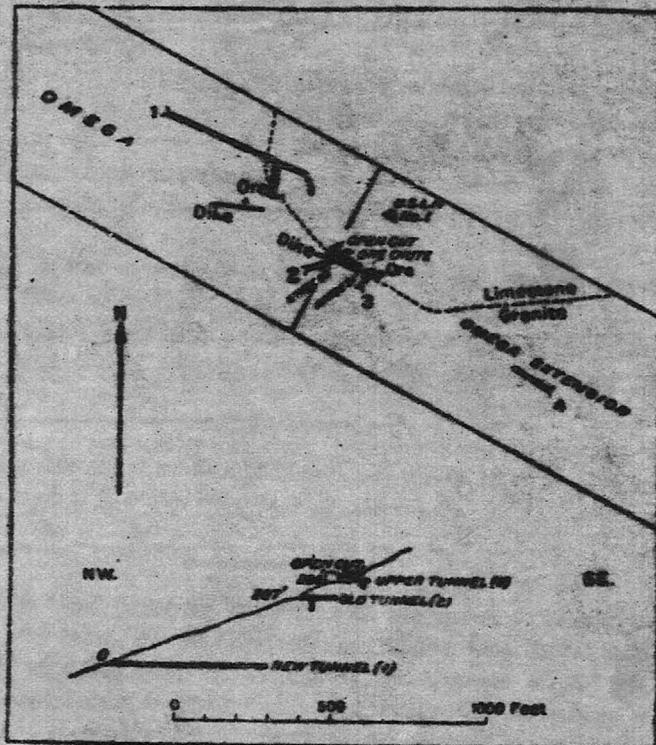


FIGURE 2.—Plan and longitudinal projection of workings of Omega mine.

have had a smelter at Helvetia in the late seventies. It was a producer and shipper of ore in 1907.

It is developed by four tunnels, a shaft, a winze, an open cut, and minor openings aggregating nearly 2,000 feet of work, comprised in a vertical range of 300 feet and distributed as shown in figure 2.

The mine is on a faulted contact of coarse granite intruded into the Paleozoic limestone. The limestone, which is in part mineralized, much epidotized, and otherwise altered, is usually crystalline and near the contact dips 30° NE. The granite for a distance of nearly 100 feet from the contact is sheared and altered and contains

VIII and X). The property joins the 1316 Royal on the boundary

*From U.S. Geol. Surv. Bull. 582*

subordinate faults dipping in all directions, especially to the north and to the south. At the joints occur much limonite, manganese oxide, and mica. Aplitic dikes are also intruded along the contact between the granite and the limestone in places, as shown by extensive croppings and in tunnels 3 and 4.

The ore is mostly a soft earthy mixture of copper and iron sulphides, with the manganese, copper, and iron-ore minerals of the oxidized zone. In the upper tunnel, however, at the ore chute, occurs a lens of almost pure massive pyrite and chalcopyrite, which in places is coated with limonite.

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#### OTHER PROSPECTS.

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#### INDIAN CLUB.

The Indian Club prospect is located in the gulch southeast of the Copper World mine, about 700 feet east of the Lake Royal mine, at an elevation of 4,940 feet. It is east of the Copper World aplitic dike, in altered, faulted, sheared, and crushed limestone which dips about 45° N. and which along the displacement zones is silicified but elsewhere crystalline.

The prospect is opened by a 40-foot and an 80-foot tunnel, shallow shafts, winzes, and cuts on two or more levels. It produced some surface ore in the early days, mostly from the upper workings, much of which was a high-grade pulverulent mixture of copper carbonates and chalcocite.

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THE OMEGA MINE IS NEARLY 1 1/2 MILES EAST OF HELVETIA AND A QUARTER  
OF A MILE SOUTH OF THE ISLE ROYAL MINE, IN THE STEEP SOUTHWEST SLOPE  
OF MONUMENT MOUNTAIN, AT AN ELEVATION OF ABOUT 5,100 FEET (PLS.  
VIII AND X). THE PROPERTY JOINS THE ISLE ROYAL ON THE SOUTHWEST  
FROM U. S. GEO. SURV. BULL. 582

OMEGA MINE  
The Omega mine is nearly 1 1/2 miles east of Helvetia and a quarter  
of a mile south of the Isle Royal mine, in the steep southwest slope  
of Monument Mountain, at an elevation of about 5,100 feet (Pls.  
VIII and X). The property joins the Isle Royal on the southwest  
From U. S. Geol. Surv. Bull. 582