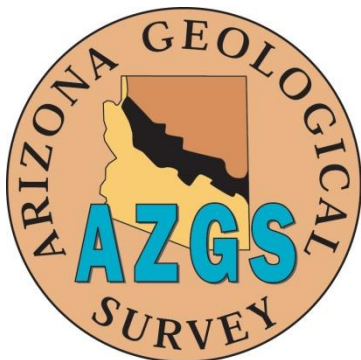




CONTACT INFORMATION

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ment of chalcocite on the pyrite and chalcopyrite. The vein at this point stands about vertical or dips very steeply northeast instead of southwest, its normal direction.

Later a fine body of high-grade copper sulphide ore, 18 to 24 inches in width, was opened in extending the drift northwestward on the fourth or 140-foot level. This ore averaged about 9 per cent of copper and 60 ounces of silver to the ton.

On the fifth or 230-foot level, which is practically the bottom of the mine, the vein dips about 70° SW. and is from 4 to 6 feet in width. The face of the drift, 100 feet northwest of the shaft, shows a width of 8 feet with the foot wall not yet in sight. Here the vein consists of coarsely streaked or irregularly banded ore, crushed quartz, and altered country rock, all pretty soft and containing 4 to 6 inch gouge seams.

South of the shaft the vein is mineralized for a width of 20 feet or more, and at the end of a 40-foot crosscut into the hanging wall there is a good looking small vein 1½ feet wide, which dips steeply to the northeast.

MIDNIGHT MINE.

The claim of the Midnight mine practically joins that of the Pinkham mine on the northwest, as shown in Plate III, and, like the Pinkham, is situated on open, gently sloping ground. (See Pl. VI, B.) The mine was discovered prior to 1866. The original owner was a pioneer named Carpenter, who in early times hauled some of the ore to the Mineral Park mill. Later the mine was owned by Heimrods, McDuffee & Gilleland, and still later by the partners Darius Brown, Robert Gibson, James Boyd, and John St. Charles. Finally, about 1898, John St. Charles and his brother Keene became the sole owners. They alone have done most of the development, and have shipped ore from the deeper levels.

The mine is developed principally by inclined shafts, drifts, and crosscuts, and is equipped with a gasoline hoist. The main shaft is 200 feet deep, and the drifts, crosscuts, and stopes aggregate several hundred feet of workings.

The same country rocks prevail as in the Pinkham vein, being principally pressed and crushed microcline-biotite granite, and this is also intruded by the same classes of diabase and granitic dikes in or near the mine, the diabase apparently being the later of the intrusives (fig. 11). The vein or lode is less well defined than the vein in the Pinkham mine. As shown in figure 10, it strikes in general about N. 65° W. and on the southeast seems to join the Pinkham vein. It has a width of 50 to 75 feet and contains much low-grade ore. As seen in the mine, it contains two main veins or ore bodies, of which the principal or south one strikes about northwest and dips irregu-

larly southwest at angles of 35° or more. The second vein strikes about N. 80° W. and dips steeply to the north.

A large amount of good ore is shown in the mine, but it contains much zinc, and considerable disturbance, including lateral faulting, has taken place, by reason of which further development is needed before the structure can be worked out. The ore contains silver, copper, gold, zinc, and iron. The silver occurs mostly in chalcopyrite, the rule being the more chalcopyrite the more silver. Some bornite is present. The gold is found principally in the pyrite. The zinc blende, though more or less mixed with the ore, occurs also in a relatively pure 3-inch shoot on the hanging wall in the northeastern part of the mine.

For some years past the mine has been shipping copper ore in a small way. This ore was rich and averaged about \$1,500 a ton, but some of it contained 5 or 6 per cent more of zinc than the 10 per cent allowed by the smelters and was accordingly penalized. It seems probable that by the use of a suitable magnetic separator the zinc could be extracted and profitably marketed as zinc ore. In certain parts of the mine the ore contains 30 to 40 per cent of zinc, and is so low in other values that it will be shipped as zinc ore. A recent

carload shipment of the ore averaged 66 ounces in silver and \$2.50 in gold to the ton and 4.5 per cent of copper. Under the present management the mine has produced about 300 tons of ore, with a total value of about \$7,000. The ore is reported to mill about 5 to 1.

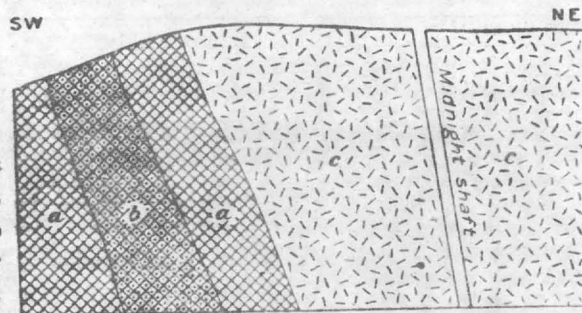


FIGURE 11.—Diagram showing intrusions near Midnight shaft. a, Aplite; b, diabase, intrusive into aplite; c, granite.

SILVER HILL VEIN.

The Silver Hill vein is located on Silver Hill, a prominent elongated ridge just southwest of Chloride and rising about 150 feet above it. It extends southward nearly to the railroad station. The ridge trends about north and south, is about three-fourths of a mile long and one-eighth of a mile broad, and is composed almost wholly of dark amphibolite schist. A coarse granitic rock appears to be intruded in its western base, and it is locally traversed by dikes and stringers of the garnet-bearing aplitic granite and also by a coarse pegmatitic granite. The schist dips about 60° E. and is cut by a well-marked sheeting that dips about 35° W.

NAME OF MINE: MIDNIGHT
OWNER:

COUNTY: Mohave
DISTRICT:
METALS: Pb,Zn

OPERATOR AND ADDRESS		MINE STATUS	
Date:		Date:	
12/44	W.C. Babcock, Box 644, Kingman	12/44	Developing
		10/46	Idle

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
MINE OWNER'S REPORT

Date August 17, 1946

Mine **Midnight** 2. Location **2 mi. S. of Chloride, Ariz.**

Mining District & County **Wallapai Dist., Mohave County**

Former name

Owner **W. C. Babcock**

Operator

President, Owing Co.

Gen. Mgr.

Mine Supt.

Mill Supt.

Men Employed

Operations: Present

6. Address (Owner) **Box 644, Kingman, Ariz.**

8. Address (Operator)

9A. President, Operating Co.

14. Principal Minerals **Lead, zinc, copper, gold, silver**

15. Production Rate

16. Mill: Type & Cap.

17. Power: Amt. & Type

Operations: Planned

Number Claims, Title, etc. **7 patented lode claims**

Description: Topography & Geography **A flat country just at the foot of the Gerbat Mountains.**

Mine Workings: Amt. & Condition **1 shaft - 300' caved at 35'
4 crosscuts - 2 at the 200' level, 2 at the 100' level
1 stope - caved**

Geology & Mineralization

Pressed and crushed microcline - biotite granite, intruded by diabas and granitic dikes, the diabase parently being the later o. the intrusives.

Ore: Positive & Probable, Ore Dumps, Tailings The only ore "in sight" is on the surface. A vein 50 to 75 ft. in width with values in gold, silver and lead. Assays can be gotten from \$2.00 to \$210.00 in gold. The more lead the higher the gold and silver. No way to answer probable ore till further development.

1. Dimensions and Value of Ore body**Mine, Mill Equipment & Flow-Sheet**

Road Conditions, Route Very good

Water Supply

Water rises to the 50' level.

Brief History The Midnight was located prior to 1866 by a man named Carpenter. He hauled his ore to the Mineral Park mill. Later the mine came to be owned by the St. Charles Bros. They found a body of high grade copper and silver ore at 50' and shipped several hundred tons. The ore carried 10 ozs. of silver to each percent of copper. The shaft was sunk to the 200' but crosscutting failed to cut the vein. The ore was found later on the 100' level. About 1916 the property was purchased and patented by the Special Problems, Reports Filed Mohave Midnight Company and no work of note done

Remarks The Midnight Mine was worked in the early days for its gold, some of the ore running as high as 50 ozs. F. C. Schraeder told me that there would be a big mine struck there some day by crosscutting where they least expected it. The Pinkham Mine is a continuation of the Midnight structure and is also a patented claim.

If property for sale: Price, terms and address to negotiate. \$50,000.00 and three years to finish. I have great confidence in this mine because I have worked in it a long time in years gone by.

32. Signature.....W. C. Babcock

Use additional sheets if necessary.

MIDNIGHT MINE

See: Pinkham Mines (files)

MOHAVE COUNTY

THIS PROPERTY IDLE

MARK GEMMILL

REFERENCES:

See: USGS Bull # 397 p. 76

USGS Bull # 340 p. 64

106901 p. 39

Kingman Mining Project - 1 claim map

MIDNIGHT MINE.

Office: care St. Charles Bros., owners, Kingman, Ariz. Mine near Chloride, Mohave Co., Ariz. Daniel S. Richards, superintendent, at last accounts. Mine has a deposit of gold-copper ore developed by a 200' shaft. Equipment includes a 10-stamp mill and concentrator turning out about 50 tons of concentrate a month in the summer of 1913, shipped to the Copper Queen smelter at Douglas, Ariz. *COPPER HANDBOOK 1912-13*

MIDNIGHT MINE.**ARIZONA**

Office: care St. Charles Bros., owners, Kingman, Ariz. Mine near Chloride, Mohave Co., Ariz., has a deposit of gold-copper ore developed by 200' shaft. Equipment: includes 10-stamp mill and concentrator.

Under option, 1916, to G. H. Holmes, Salt Lake City. Reported to be drifting on 200' level and planning to sink shaft deeper.

COPPER HANDBOOK 1916

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
MINE OWNER'S REPORT

Date **August 17, 1946**

1. Mine **Midnight**

2. Location **2 mi. S. of Chloride, Ariz.**

3. Mining District & County **Wallapai Dist., Mohave County**

4. Former name

5. Owner **W. C. Babcock**

6. Address (Owner) **Box 644, Kingman, Ariz.**

7. Operator

8. Address (Operator)

9. President, Owning Co.

9A. President, Operating Co.

10. Gen. Mgr.

14. Principal Minerals **Lead, zinc, copper, gold, silver**

11. Mine Supt.

15. Production Rate

12. Mill Supt.

16. Mill: Type & Cap.

13. Men Employed

17. Power: Amt. & Type

18. Operations: Present

19. Operations: Planned

20. Number Claims, Title, etc.

7 patented lode claims

21. Description: Topography & Geography

A flat country just at the foot of the Cerbat Mountains.

22. Mine Workings: Amt. & Condition

**1 shaft - 300' caved at 35'
4 crosscuts - 2 at the 200' level, 2 at the 100' level
1 stope - caved**

23. Geology & Mineralization

Pressed and crushed microcline - biotite granite, intruded by diabase and granitic dikes, the diabase apparently being the later of the intrusives.

24. Ore: Positive & Probable, Ore Dumps, Tailings

The only ore "in sight" is on the surface. A vein 50 to 75 ft. in width with values in gold, silver and lead. Assays can be gotten from \$2.00 to \$210.00 in gold. The more lead the higher the gold and silver. No way to answer probable ore till further development.

24A. Dimensions and Value of Ore body

25. Mine, Mill Equipment & Flow-Sheet

26. Road Conditions, Route

Very good

27. Water Supply

Water rises to the 50' level.

28. Brief History

The Midnight was located prior to 1866 by a man named Carpenter. He hauled his ore to the Mineral Park mill. Later the mine came to be owned by the St. Charles Bros. They found a body of high grade copper and silver ore at 50' and shipped several hundred tons. The ore carried 10 ozs. of silver to each percent of copper. The shaft was sunk to the 200' but crosscutting failed to cut the vein. The ore was found later on the 100' level. About 1916 the property was purchased and patented by the Mohave Midnight Company and no work of note done

29. Special Problems, Reports Filed

30. Remarks

The Midnight Mine was worked in the early days for its gold, some of the ore running as high as 50 ozs. F. C. Schraader told me that there would be a big mine struck there some day by crosscutting where they least expected it.

The Pinkham Mine is a continuation of the Midnight structure and is also a patented claim.

31. If property for sale: Price, terms and address to negotiate.

\$50,000.00 and three years to finish. I have great confidence in this mine because I have worked in it a long time in years gone by.

32. Signature..... W. C. Babcock

33. Use additional sheets if necessary.

It is developed to a depth of about 400 feet by tunnels, shafts, and drifts, aggregating over 3,000 feet of underground work. It produces some water. The principal surface improvements are two well-equipped power plants, with gasoline engines, aggregating about 90 horsepower, for operating the steam and air-compressor drills and the hoists. The country rock is principally dark medium-grained biotite granite of pre-Cambrian (?) age. It is intruded by the light aplitic granite near by. There are six veins, which strike nearly north and are either vertical or dip steeply to the east. Of these the principal producer, known as No. 3, is about 4 feet thick and its ore shoot ranges from 1 to 30 inches in width. The ore contains gold and silver, some galena, pyrite, zinc blende, and here and there a little molybdenum. As shown by the smelter return sheets from 1903 to 1906 inclusive, it averages about as follows: Gold, 1½ ounces; silver, 15 ounces per ton; lead, 8 per cent; and zinc, 5 to 8 per cent. The total production has been about \$180,000. The present rate of output is about 90 tons per month. The ore is shipped principally to the Needles smelter.

Towne mine.—The Towne mine is situated 1½ miles southeast of Chloride, in the Sacramento Valley about one-half mile from the base of the mountains. It is developed by six shafts and drifts. It produces considerable water. The country rock is pre-Cambrian schist. A vossite dike is associated with the vein on the foot-wall side. The vein, which is 3 to 8 feet wide, dips steeply to the north.

The gangue is quartz and the ore shoot, ranging from 3 to 18 inches in width, averages about 5 inches and favors the foot-wall or dike side of the vein. The ore contains silver, gold, copper, lead, and zinc and runs about \$300 per ton mostly in gold and silver. The production from 1882 to 1906 was about \$100,000.

Pinkham mine.—The Pinkham mine, perhaps the most important copper mine of the region, is located about 2 miles southeast of Chloride, near the foot of the mountains. It is developed by a 250-foot shaft and five levels containing about 1,000 feet of drift and crosscuts. It contains considerable water. The principal surface equipments are a steam hoist and two smelters, one coke and one oil, both recently installed. The country rock is pre-Cambrian granite. The vein is about 12 feet in width. It strikes N. 30° W. and is nearly vertical. The ore occurs in elongated lentils and chimneys. It is mostly chalcopyrite and bornite associated with iron sulphide, and averages about 3 per cent of copper and 18 ounces per ton of silver.

Midnight mine.—In the Midnight mine, situated near the Pinkham mine, the vein is less well defined than the Pinkham vein and contains considerable zinc. A recent carload shipment of the ore ran silver 66 ounces per ton, copper 4.5 per cent, and gold \$2.50 per ton. The production under the present management is reported to be 100

tons of shipping ore, averaging \$50 per ton, and 2,000 tons of milling ore, containing values of about \$10 per ton.

In association with the Pinkham and Midnight deposits or cutting the pre-Cambrian rocks near by are microcline granite and diabase dikes.

MINERAL PARK DISTRICT.

General outline.—The Mineral Park district lies about 4 miles southeast of Chloride, mainly in a basin several miles in diameter, between the elevations of 4,000 and 5,000 feet. The drainage issues westward into the Sacramento Valley, mostly through Mineral Park Wash. Chloride is the principal supply point, but ore and heavy freight are hauled direct to the railroad 3 miles west.

The first locations were made in 1870, when considerable ore was taken out and shipped to the Selby smelter at San Francisco, at cost for freight of \$125 per ton. Production continued more or less active until 1882, since which time it has been small, only a few of the mines being worked.

The pre-Cambrian complex is here intruded by the Mineral Park mass of aplitic granite and by dikes of rhyolite, diabase, and minette. The deposits contain gold, silver, lead, and copper, which usually occur together, mostly in fissure veins or lodes, some of which are extensive. The mines, numbering about 20, are small. Few of them exceed 300 feet in depth or 1,000 feet in amount of underground work. Some of the principal ones are the Rural, Buckeye, Ark, Queen Bee, Tyler, Keystone, Fairchild, Metallic, Accident, Lady Bug, Standard, and Golden Star. The most important producers at present are the Keystone, Tyler, and Queen Bee.

Keystone mine.—The Keystone mine is situated on open ground, about one-fourth mile east of Mineral Park. It is developed mainly by a 450-foot shaft and 500 feet of drifts, mostly down to the 150-foot level, above which the greater part of the ore is worked out. The principal country rock is aplitic granite. The vein dips steeply to the north. The ore occurs mostly as lenses about 1 foot wide in a quartz gangue. It contains silver, copper, zinc, and iron, the better grade running 200 ounces per ton in silver, some of which is glance; 2½ per cent of copper; 8 or 10 per cent of zinc; and about 12 per cent of iron. Locally it is irregularly banded toward the outside of the lenses. It is richest where the vein pinches. The ore averaging \$20 or more per ton is shipped to the Humboldt smelter. None lower than this grade is handled. The output is about 20 tons per month. As most of the ore runs \$12 to \$15 per ton, it should be milled on the ground. The total production is stated to be \$50,000.

Tyler mine.—The Tyler mine is located 2¼ miles southeast of Mineral Park, near the summit of the range, on a steep northeast slope.

50°55'N
SILVER
M.S. 2
10°55'E
Cod
N
260

LITTLE
M.S. 307.3

M.S. ALTATA
3073

Code 116

Case 1108

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359°34'E
COPPER BAR No 1
M.S. No 3325
150°
1424
161°49'W

10/12/86 55572E
COPPER BAR
MS. N° 3375
10862 MS
55572E

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WON
3375
NSP 2514
COPPER GLANCE
M.S. No 3375
1944

BUCKEY O'NEIL
M.S. N^o 3375

MIDNIGHT
M. S. No 3557

TOWNE
M.S. No 2850

1500
BRYAN
M.S. No 2830
1500