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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: SIGNAL POINT

ALTERNATE NAMES:

STRONGHOLD CLAIMS
CLARK CLAIMS
ASH SPRING MINING AREA

COCHISE COUNTY MILS NUMBER: 596

LOCATION: TOWNSHIP 24 S RANGE 29 E SECTION 16 QUARTER C
LATITUDE: N 31DEG 20MIN 46SEC LONGITUDE: W 109DEG 23MIN 43SEC
TOPO MAP NAME: COLLEGE PEAKS - 15 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:

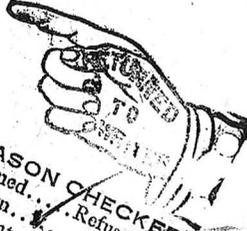
LEAD
BARIUM BARITE
COPPER OXIDES
SILVER
GOLD LODE

BIBLIOGRAPHY:

ADMMR SIGNAL POINT GROUP FILE
ALLEN, M.A., AND BUTLER, G.M., 1919, BARYTES,
ARIZ BUR MINES BULL 99, P 7

L RESOURCES

na
rgrounds
ONA



REASON CHECKED

Unclaimed.....Refused.....

Unknown.....Refused.....

Insufficient address.....

Moved, Left no address.....

No such office in state.....

Do not remain in this envelope

Mr. Geo. E. Hemphill

Douglas

Arizona

ARIZONA DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA

July 29, 1958

To the Owner or Operator of the Arizona Mining Property named below:

Signal Point Group (Cochise County)
(Property)

AK - Pb - BARITE
silver, copper
(ore)

We have an old listing of the above property which we would like to have brought up to date.

Please fill out the enclosed Mine Owner's Report form with as complete detail as possible and attach copies of reports, maps, assay returns, shipment returns or other data which you have not sent us before and which might interest a prospective buyer in looking at the property.

Frank P. Knight

FRANK P. KNIGHT,
Director.

Enc: Mine Owner's Report

Engineers Report.

SIGNAL POINT GROUP OF MINING CLAIMS.

Dragoon, Ariz. Aug. 30, 1915.

✓ Mr. Geo. H. Hemphill,
Douglas, Ariz.

*Copy of original
"Light Copy"*

Dear Sir :-

In accordance with your request I have examined the Signal Point Group of mining claims, owned by Messrs. Gerstenkorn, E. Hemphill and yourself, and herewith submit to you my report.

Respectfully yours,

Edw. Hubbard.
Mining Engineer.

LOCATION.

The Signal Point Group of mining claims are situated in the Perilla Mountains, in the Ash Springs Mining District, Cochise County, Arizona, about eleven miles east of Douglas and adjoining the International Boundary with Mexico.

The claims extend in a northwest-southeast direction and lie in a group of porphyry-limestone hills.

This group comprises six mining claims, which are the Clark Nos. 1, 2 and 3 and the Stronghold Nos. 1, 2, and 4. The title is vested by location under the laws of the State of Arizona and of the United States.

GEOLOGY.

The area covered by this group and in its vicinity shows great erosion, the formation of which is limestone and Dacite porphyry. The limestones cover very irregular areas, from north to south over the eastern part of the property, and the beds are little exposed althou

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the overburden is not deep.

These limestones are dark in color and thin bedded and are probably of Paleozoic age and in places near the Dacite porphyry contact they are more or less metamorphosed. They dip about 45° to the west and lie in a general north and south direction. The Dacite porphyry is apparently intrusive through the limestone.

The Dacite porphyry covers approximately the western half of the group and is also exposed on the northern end of the Stronghold claims Nos 1 and 2 and on the eastern end of Clark claim No. 3. The dacite porphyry shows very little quartz and some magnetite with the altered phenocrysts of feldspar predominating.

The general course of the lime stone-porphry contact is about N. 10° W. and nearly parallel with the limestone beds but locally the course of the contact is very irregular.

Near the northern end of the property there is an iron dike beginning about 100 feet of the limestone-porphry contact and extending about 1200 feet in a direction S. 50° W. This iron dike cuts through the Dacite porphyry for the greater part of its length and in this southern end is three to four feet wide. At the limestone-porphry contact it widens to thirty or forty feet and extends into the limestone with this width for a distance of 100 feet.

Further south near the centre of the property, there is, apparently, a barite vein which extends from a short distance within the Dacite porphyry N. 60° E. on through the limestone for a distance of 1000 feet.

This iron dike and ^{barite} ~~dacite~~ vein are two important zones of mineralization on the property.

Development.

On the Clark No. 1. claim, in the Barite vein, there is a

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shaft 75 feet deep and several small open cuts from all of which ore has been taken out. The minerals are barite, the sulphate of barium, galena the sulphide of lead, little chalcopyrite and carbonates of lead and copper. At the depth of forty feet in this 75 foot shaft there is a drift which is now filled. A sample taken across the back of this drift at the shaft and away from the barite gave the assays, gold .03 oz. silver 1 oz. lead 6.5%, and copper .20%. This shaft is reported to have shipped five tons of ore valued at \$120.00 per ton and thirty tons valued at \$35.00 per ton. A sample taken from the dump of about 15 tons remaining from the shipment above noted gave the following assays. Gold .04 oz. silver 2.30 oz., lead 13.10% and copper a trace.

This shaft is in the Dacite porphyry about twenty five feet west of its contact with the limestone. The ore body is cut off just below the drift although the barite continues in the bottom of the shaft and is three to four inches wide.

If the limestone continued on its dip it would enter the shaft at the depth of forty feet, but the porphyry continues to the bottom of the shaft. Assays from the bottom of the shaft gave no gold, silver or copper. This shaft is called the Clark No. 1. shaft.

Sixty feet north east of the Clark No. 1 shaft is an open cut 4 feet deep and marked on the sketch (A). This is on the limestone-porphry contact. The ore here is in irregular boulders and a sample of the sorted ore gave the following assays, gold trace, silver 2 oz. lead 32.5% and copper .35%.

Another cut and short inclined tunnel, marked (B) working, is about 100 feet north of the Clark No. 1. shaft. This is near the limestone-porphry contact, with the ore in the limestone. There is considerable quartz in this ore. This working has limestone in the face and being

north of the Clark No. 1 shaft, shows that there is a break or fault between this point and the Clark No. 1. shaft. Assays of the samples taken from the dump at this working gave gold .02, silver 1.50 oz. lead 13.6% and copper .60%.

About 400 feet in a course N. 60% E. from (B) working is (C) working which is a pit three feet deep. This pit is on the barite vein and shows the ore on either side. The barite vein is very irregular in width, from one inch to one foot, and the width of the ore is also irregular. Assays from picked pieces of ore gave gold .13 oz, silver 17.8 oz., and 1.65% copper. This sample carried lead but was not assayed for lead. About one ton of ore from this working is now on the dump.

From this point, the limestone was traced southwest about 600 feet to where it showed copper stains marked (H) on the sketch. This formation continues southwest until near the porphyry where it changes to a metamorphosed limestone breccia.

On the barite vein 100 feet north east from (C) working is another pit four feet deep, and marked (D) on the sketch. The ore here showed much more copper than elsewhere and very little galena. The limestone bedding at this place shows a great deal of local folding, the ore occurring in nodules with iron. Assays from the ore gave gold trace, silver .70 Oz. and copper 12.4% per ton.

The barite is opened in two more places, (E) and (F) on the sketch and which is further north and which shows good mineralization extending over on stronghold No. 2 claim. No samples were taken here.

Near the center of Stronghold No. 2 claim at a point marked (G) on the sketch, copper bearing porphyry is found.

On Stronghold No. 1 claim, near the south end at (I) on the sketch, is a narrow vein of copper in the porphyry and at (J) which is an 8 Ft.

shaft in the limestone, the bedding and joint planes of the limestone are filled with secondary copper minerals. A sample here gave assays, gold trace, silver .60 oz and 1.10% copper.

On Clark No. 2 claim there is a shaft, said to be 75 feet deep but which is nearly full of water. This shaft is in the Dacite porphyry and has produced ore carrying good values in gold but the values are not even. No samples were taken from the dump and it was impossible to take any samples from the shaft.

Near the north end of Clark No. 1 claim at (K) on the sketch is a ten foot shaft in the brecciated limestone similar to (H) but copper minerals were not seen at this point.

On the Clark No. 3 claim is a shaft 60 feet deep which has been sunk in the iron dike. This shaft and an 8 foot shaft 25 feet south are east of the limestone - porphyry contact. A sample from these two dumps gave a trace of gold, silver and copper.

At the location shaft of Stronghold No. 4 claim, which is 8 feet deep, there is a vein in the Dacite porphyry which strikes S. 15° E. and dips 65° N.E. The vein consists of two narrow streaks and is more or less silicified showing secondary copper minerals in small quantity.

CHARACTER OF THE DEPOSITION.

The physical characteristics of this group of claims leads one to believe that the mineral deposition is by contact metamorphism as we have the porphyry and the highly crystallized limestone adjoining. However characteristic minerals of contact metamorphic mineral deposits, such as garnet, tremolite, diopside and sphalerite are almost if not entirely absent.

The iron dike appears to be an oxidized contact metamorphic mineral

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deposit and the presence of small values in copper does not mean that it is of no value because in such a deposit, in the upper oxidized zone the copper content may be expected to be very low for the reason that the copper has undoubtedly been leached out of it. In copper deposits of this type the surface zone may be either barren or contain oxidized copper minerals, the second zone contains minerals of better value because of enrichment from the surface waters which have leached the surface zone. This zone of secondary enrichment usually passes, with depth, into a lower zone of primary ores which are of lower value. The primary minerals are pyrite and chalcopyrite.

The barite vein, with galena and small amounts of malachite, is probably formed by being precipitated from circulating waters at an age later than the porphyry intrusion. Barite often has galena associated with it and is not a contact metamorphic mineral but is a mineral that is deposited from aqueous solutions, the mineral content being taken up into solution in the course of its movement through fissures and openings in either igneous or sedimentary rocks, either of which may contain barium in small amounts. These solutions may contain other minerals and when they come into contact with mineral bearing solutions of another character or if there is a change of temperature, a chemical reaction takes place and the barium is deposited as barite ($BaSO_4$) and the metallic sulphides, particularly galena, the sulphide of lead, and any or all other minerals may be deposited with it.

WATER.

Sufficient water has been developed on the property for camp purposes. A greater amount of water can be developed, if needed.

WOOD AND TIMBER.

There is plenty of mesquite wood on the property which can be used as fuel. No timber of larger size, suitable for mining purposes can be obtained from the property.

TRANSPORTATION.

Supplies of all kinds can be obtained at Douglas and transported to within one half mile of the property over the Douglas-Slaughter Ranch wagon road, a distance of eleven miles. The road is in good shape. The cost of freighting these supplies should be low.

CONCLUSION.

The surface indications of mineral deposits of size are good and warrant further development. The 75 foot shaft on the Clark No. 1 claim is in good condition. I would advise the continued sinking of this shaft to 150 or 200 feet in depth, cross cut to the limestone-porphry contact at both the 100 foot level and the 200 foot level and then drift along the contact. If this shaft is sunk only an additional 75 feet, then cross cut at the bottom of the shaft. In either case of crosscutting, continue the cross cut until it cuts the horizon of the limestone (C-H) and drift to cut the barite vein.

I would also recommend a small amount of work on the barite vein to determine its dip and continuity, both by additional open cuts and by deepening one or two of the present ones. This amount of work would probably be enough to determine future development work.

Continue the sinking of the shaft which has been sunk 60 feet in the iron dike until it has entirely passed through this iron gossan.

8.

With about twenty five tons of \$17.00 ore on the dump of the Clark No. 1 shaft and the other shallow workings, a small amount of additional ore developed and a general mineralization over the property, I call it a good prospect.

The property is in an undeveloped district, which shows good mineralization and the geology is similar to that of other mining districts of south eastern Arizona.

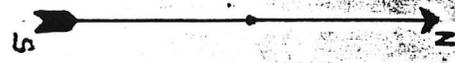
A reasonable amount of development work in the Clark No. 1 shaft should show conditions underground in such a way that the future of the property will be assured.

Signed,

Edw Hubbard

Mining Engineer.

International Boundary
UNITED STATES
MEXICO



Stronghold No 4
Dacite Porphyry

Stronghold No 3
(not recorded)

Clark No 3

Clark No 2
Dacite Porphyry

Clark No 3
Ash Springs Mining District

Clark No 1

Stronghold No 2
Dacite Porphyry

Stronghold No 1

SKETCH
of file
SIGNAL POINT GROUP
OF MINING CLAIMS,
ASH SPRINGS MINING DISTRICT,
COCHISE COUNTY, ARIZONA.
SCALE: 400' = 1 inch.
Aug. 30, 1915.
TO ACCOMPANY REPORT BY
GEOLOGICAL SURVEY

Stronghold No 3
(not recorded)

Stronghold No 1
(not recorded)