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07/16/97

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: SWASTIKA EXTENSION NORTH

ALTERNATE NAMES:

BRISLIN

YAVAPAI COUNTY MILS NUMBER: 1202B

LOCATION: TOWNSHIP 11 N RANGE 1 E SECTION 30 QUARTER NW
LATITUDE: N 34DEG 16MIN 17SEC LONGITUDE: W 112DEG 18MIN 10SEC
TOPO MAP NAME: BATTLE FLAT - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

SILVER
COPPER

BIBLIOGRAPHY:

USGS BATTLE FLAT QUAD
ADMMR SWASTIKA EXTENSION NORTH FILE
TENNEY, J.B. SECOND REPT ON MIN. IND. OF AZ
AZBM BULL 129 1930 P 78
CLAIMS EXTEND INTO SEC. 19
AT TIME OF PRODUCTION CURTIN PATENTED CLAIM
MS 653 WAS PART OF THIS GROUP

SWASTIKA EXTENSION (North)

YAVAPAI COUNTY

ABM Bull. 129 p. 78 (Breslin Mine)

Arizona Mining Journal, 12/1/22, p. 38?

Breslin Property

April 30, 1921.

REPORT OF THE NORTH SWASTIKA EXTENSION MINING PROPERTY,
NEAR CROWN KING, YAVAPAI COUNTY, ARIZONA.

(Breslin Mine)

The property comprises six mining claims, one of which is fractional, situated on the east slope of the Bradshaw Mountains, about two miles north of Crown King. Two of the claims lie immediately north of the Swastika Mine and cover the out-crop of the Swastika vein for a lineal distance of 3000 feet. The property is reached by a good wagon road from Switch No. 6, (Swastika Siding) on the Santa Fe Railroad, and by trail from the Middleton, P.O., where a good road extends to the Prescott-Phoenix Highway. The Swastika Camp is available as a supply base and can probably accommodate a small working force on the "Extension". The early completion of the Swastika Mill will also provide a means of treating the low grade ores of the Extension property.

HISTORY.

The district was a notable producer in the early 80's, the Crown King Mine having yielded several million dollars from bonanza ore before it was shut down, and the Peck Mine, which lies but half a mile or so west of the of the Swastika, being credited with a production of three million dollars before it was shut down because the ore became base and could not be milled by old time methods.

The Swastika itself is a young mine with a production of about One Million dollars, all from workings above the 600 foot level. The North Extension is virgin ground, in which surface conditions are promising, not only on the Swastika vein, but on a parallel vein containing copper ore.

GEOLOGY.

The rocks in the vicinity of the Swastika Mine are flaky, silicious schists of the Yavapai formation, cut by numerous dykes of granite and quartz porphyry, which appear to be offshoots from the main granitic mass of the Crown King area. The schists trend about North 30 degrees East, and the dykes cutting

through and across the schists, also have a general Northerly course. The Swastika vein is a big jaspery quartz ledge which lies alongside of a quartz porphyry dike. The ledge runs South, 15 to 25 degrees West, conforming to the schistosity and is from 10 to 30 feet thick, weathering out as a bold reef or comb, which is not, however, continuous along the surface. The copper vein which lies 300 feet or so, farther west, is between 5 to 10 feet thick, and runs North 10 Degrees East,

and does not form so prominent an outcrop. The Swastika ore carries Silver with little more than a trace of Copper and from 12% to 18% iron. On one level, the Swastika workings have been extended into the North Swastika Group, proving the continuity of the vein and persistence of mineralization.

Aside from a few surface pits sunk on the vein, the North Swastika Extension ground is practically undeveloped and unexplored. Its value consists in the presence of the main Swastika vein and in the fact that this vein carries payable ore up to and across the boundary line between the two properties. The record of the Swastika is available as a guide, but the possible occurrence of ore shoots in the Extension ground can only be determined by exploration, since the meagre surface workings do not show ore. From the size and persistence of the vein outcrop and the apparent absence of marked displacement throughout the claims, I consider the property worthy of exploration in the hope of finding ore bodies comparable in size and character to those of the Swastika.

The accompanying longitudinal section along the Swastika vein, shows the mine workings and outlines ore bodies so far mined. As only high grade ore could be shipped, the stoped areas shown on the section do not accord with the limits of commercial ore of milling grade. Quite recently the 'gob' or low grade ore, or vein matter used for filling the old stopes when the high grade ore was mined, has been pulled and shipped to the Smelter. A total of 551 tons averaged 30 oz Silver per ton, running 68% silica, 0.76% copper and 12.7% iron. This longitudinal section of the Swastika vein shows that it has been developed by shaft raises and levels, to a depth of 600 feet below the outcrop, or 400 feet below the main tunnel.

South of the shaft the vein has not been stoped below the tunnel level; north of the shaft the ore shoots have been stoped from the 400 foot level up to the 100 foot, or tunnel level, and a little ore taken out of shallow workings.

The section shows that the 300 foot level extends northward from the shaft about 200 feet, or into the North Swastika Extension ground, the line between the two properties bisecting a small shoot of high grade ore. The section seems to indicate that the stopes occur so grouped as to form an assemblage of high grade ore bodies included in one ore zone, or shoot, with a northerly pitch. As the values on the 400 foot level are still good, it is reasonable to expect that this pitch will carry the ore into the North Swastika ground at lower levels.

The cross section does not show the ore body opened and mined out above the tunnel whose portal is near the Swastika boarding house, an ore body not yet developed in the deeper mine workings. The map given herein of the extension of the 300 foot level of the Swastika Mine into the North Swastika ground shows the results of samples cut at five foot intervals. These samples show that the ore shoots fadenout and the vein on the one streak thus far opened, is non-commercial, but the value improves at the face and may indicate the beginning of a new ore shoot, moreover, experience in the Swastika has shown that a footwall ore band may exist where the hanging wall streak is lean, the vein being too wide to be proven by a narrow drift alone.

The map of the Curtin and Leftover claims is also included in this report and shows the outcropping quartz masses of the veins which establish its continuity. It also shows the location of the Middleton shaft sunk on the so called Copper vein. This vein is opened in the Swastika mine and appears worthy of exploration, though it does not contain commercial ore in the places thus far opened. It is my opinion that the size, length and character of the vein in the Swastika Mine to the South, warrant a reasonable expectation of finding ore of commercial value and amount in the North Swastika Extension ground.

SUMMARY AND RECOMMENDATIONS

The property consists of six claims, one fractional, unpatented, situated north of the Swastika Mine, in the Crown King District, Yavapai County, Arizona. Two of the claims contain the Northern Extension of the Swastika vein, which in the mine of that name has yielded over a million dollars worth of shipping ore from about the 600 foot level and a length of 1100 feet on the vein. An extension of the 300 foot level of that line for 120 feet into the North Swastika ground shows the fading out of one ore shoot and the probable beginning of another. The character of the ore, its geological occurrence and pitch of the shoots warrant the expectation that similiar shoots will be found in the North Swastika ground. The size, extent and character of the vein as shown by the outcropping masses of quartz on these claims is also a favorable factor.

It is my opinion that the property merits exploration and I recommend making an arraignment with the Swastika Company to continue the 300 foot level 1000 feet or more farther north. A crosscut tunnel already started at the South end of the property can be utilized if necessary, but a working agreement with

the Swastika will be cheaper, better and more satisfactory and will obviate the purchase of machinery, building roads and erecting buildings. It is in my judgment also advisable to work out a plan for the consolidation of the properties if possible.

I, therefore, recommend the expenditure of \$50,000.00 on development work, it being understood that the owners will accept stock, or a mortgage for their equity, so that the entire amount mentioned can be spent in underground work. The proximity of the Peck, Crown King, De Soto and other former producers of high grade ore and of the Swastika Mine, make the development of this virgin ground an attractive speculative venture.

Very Respectfully Yours,

(Signed) Walter Harvey Wood.

(COPY)

Since this report was made this ore body has been extended about 50 feet, has been stoped out above but nothing has been mined under this tract.

Prescott, Arizona, June 7, 1933.

Be shipped from Bristol

LIST OF SMELTER RETURNS FROM ORES SHIPPED BY NORTH

SWASTIKA MINING CLAIMS.---

DATE Shipped.	TONS.	SILVER PER TON-Assay.	VALUE SILVER Per OUNCE.	REC'D NET PER CAR.	
7-17-23	55	243.5 ounces.	63¢	\$7004.29	By Humboldt Smelter.
7-31-23	54	137.9	62.7¢	3550.78	"
11-2-23	60½	144.5	63¢	4388.74	"
12-18-23	50	91.4	65.5¢	2191.10	"
12-25-23	45	74.2	64.3	1490.11	"
1-15-24	45	115.8	63¢	2466.70	"
1-29-24	56	67.	63¢	1621.38	"
2-9-24	46½	101.8	64¢	2284.07	"
5-13-24	50½	111.6	65½¢	3179.73	By A. S. & R., Hayden, Ariz.
6-10-24	51½	100.3	67.2¢	2966.19	"
6-17-24	54.4	70.35	67¢	2114.30	"
6-27-24	54	62.3	66¢	1811.48	"
8-26-24	60½	99.5	68.4¢	2987.48	"
Total 619--				Total \$38,126.35	

Ave # 615.93

REPORT ON THE
PROPERTY OF THE
GOLD CROWN SILVER MINING COMPANY
Pecks Siding, Yavapai County, Arizona.

By

F. W. GIROUX
Gleeson, Arizona.

ARIZONA MACHINERY COMPANY
231 N. CORTEZ STREET
PRESCOTT, ARIZONA

PROPERTY:

The property of the Gold Crown Silver Mining Company consists of the following claims, to-wit:

<u>Name</u>	<u>Title</u>	<u>Area</u>
Curtin	U. S. Patent	20 Acres
Velvet	Location	15 Acres
Left Over	"	20 Acres
Left Over fraction	"	5 Acres
Peck-Swastika	"	20 Acres
Trinaeria No. 1	"	15 "
" No. 2	"	20 "
" No. 3	"	20 "
" No. 4	"	20 "
" No. 5	"	20 "
" No. 6	"	20 "
" No. 7	"	20 "
" No. 8	"	20 "
" No. 9	"	20 "
" No. 10	"	12 "

SITUATION:

All claims, with the exception of Peck-Swastika, are contiguous and situated in the Peck Mining District, of Yavapai County, Arizona, and are three miles in a south-westerly direction from Middleton, a station on the Bradshaw Mountain Railroad, a branch line of the Santa Fe. From Middleton, the property is reached by a good truck road. Prescott, the county seat and largest town in northern Arizona, lies to the north a distance by road of about fifty miles.

ACCESSIBILITY:

The property is easily accessible over a fine

county highway built to Federal specification to Cordes. The roadway has a finished width of 20 feet and is a gravel surfaced road. To this point, the maximum grade is six per cent. which is reached only by short stretches. From Cordes, the road to the foot of Antelope Hill is narrow and of steeper grade, but good. From the foot of Antelope Hill to Middleton--a distance of seven miles-- the road is narrow and full of steep grades. From Middleton to Pecks Siding the road is excellent, following an old railroad grade. From Pecks Siding to the portal of Tunnel No. 3--a distance of one mile--the road is narrow and crooked and has numerous heavy grades. However, any make of truck can negotiate the road with capacity loads. Train service from Prescott to Middleton is weekly.

TRANSPORTATION:

Prescott is served by Santa Fe Prescott & Phoenix Branch of the Santa Fe System which reaches all of the important points of the county; there being branch lines to smelters at Clarkdale, Clemenceau and Humboldt.

TELEGRAPH AND TELEPHONE:

There is an office of the Western Union Telegraph Company in Prescott with sixteen hour service daily, with the usual messenger service. At Mayer a telegraph office is also maintained. The Peck-Swastika claim is crossed by local and long distance lines of the Mountain States Telephone and Telegraph Company with telephones at the property giving bell service at small cost at all times.

TOPOGRAPHY:

The claims lie on the east slope of the Bradshaw Mountains at an elevation above sea level of from 4,300 feet to 5,500 feet, with the general drainage to the east. The

terrain is very rough and precipitous. The vegetation is characteristic of the district, composed mostly of scrub oak and chaparrall with a few cotton wood in the canyons.

WATER:

Sufficient water is already developed for domestic purposes and camp use. When development warrants, enough can be had to handle a large milling plant at reasonable cost.

CLIMATE:

Quite contrary to popular belief, this high plateau, although in the southern part of the United States, has a very equitable climate. The average temperature for a period of ten years was 58 degrees Fah. with a maximum of 104 degrees Fah. and minimum of 20 degrees Fah. The average annual precipitation over the ten-year period was 15.2 inches. The lowest temperature usually comes in January and the highest in the first part of July. January, February, July and August have the highest monthly precipitation; May, June and October the lowest. Although the summer temperature frequently goes to 100 degrees Fah. it is never unbearable owing to the very low humidity.

LABOR:

There is no difficulty in obtaining plenty of men at standard wages; \$5.50 to \$6.00 for machine men, \$6.00 for hoistmen, \$6.50 for timber men and \$4.00 for laborers on surface.

TIMBER:

Such as is needed in the mine is delivered on the ground for \$40.00 to \$60.00 per M.

POWER:

The Arizona Power Company's high tension line passes squarely across part of the property. This power is furnished for about $2\frac{1}{2}\phi$ per kilowatt hour, depending upon the amount of power used. This allows considerable saving in power plant construction and the difficulty in handling fuel. The power line has been extended to Level No. 3 (or lower cross-cut) of the Gold Crown property where an up-to-date compressor plant, blacksmith shop and so forth have been installed.

GEOLOGY:

General: The important rocks of the northern and middle of the U. S. G. S. Bradshaw Mountain Quadrangel (U. S. G. S. Folio 126), are schist, diorites, rhyolites and granites. The schist is found to be pre Cambrian in age and of probable sedimentary origin. On the property of the Gold Crown Silver Mining Company the rocks are silicious schist of the Yavapai formation cut by numerous dykes of rhyolite, some granite and quartz porphyry which appear to be off shoots from the main granite mass, both east and west. The schist trends north 26 degrees east and the dykes cutting through and across the schists also have a general northerly course. The Gold Crown vein system is composed of immense quartzite ledges running, in places, parallel to the schistosity, on other places diagonal to the schistosity. The broad schistose belt is cut by several prominent dykes of diorite, quartz porphyry and rhyolite and a softer, coarser grained porphyry of various width and similar strike and dip to the schists. One prominent cross fault is noted. The conditions are good for mineral deposition.

Vein System: Five well defined veins cross the claims Curtain, Left Over, Velvet, Trinacria #9, Trinacria #1, Rinacria #10, Rinacria #3, giving approximately 4,500 feet of prospecting area along the strike of the veins with 1,200 feet in cross section. The Main, or Big Prince vein in which are the principal workings of the Gold Crown, appears on the Curtain claim as a big jaspary quartzite ledge with high reef out-crops for many feet in places and at others covered with detritus but maintaining where exposed a true course in conformity with the schistosity. It varies from ten to fifty feet wide along its strike and shows much oxidation; it lies on the footwall side of a rhyolite dyke. Assays taken from the out-crop of this vein run from 4 to 60 ounces silver per ton. The Little Prince vein, some 300 feet to the west of the Big Prince vein, is not so bold or pronounced in its out-crop; it lies above the rhyolite dyke, makes the dyke its foot wall and a band of schist for its hanging wall. Both of these veins, as they go down the mountain on the Left Over claim, become covered with detritus as they approach the north end line and are lost to view. The Big Prince vein has been picked up on the Garfield claim of the De Soto, in a shallow shaft where it shows strong and persistent. The copper condition is about 200 feet west of the Little Prince vein. Several small pits and one shaft have been sunk along this condition. Copper ore occurs in this condition as lenticular replacements in the schist. Samples taken have given from 1% to 30% copper, to 20 ounces silver and \$2.00 to \$14.00 gold per ton. No ore concentration of commercial value in quantity has been encountered as yet. It is upon this continuation to the north that the large workings of the De Soto Mine have been conducted and it promises great possibilities at depth in the Gold Crown ground. On the Velvet claim, the Hardscrabble vein shows strong, following a rhyolite dyke. Sheet #5

as its foot wall with a band of schist for a hanging wall. About midway between the Hardscrabble vein and Big Prince vein is another vein un-named which shows on the surface. This vein was cut by Tunnel #3 about five hundred feet from the portal; a little ore assaying 101 ounces silver to the ton was encountered at this point. No drifting has been done on this vein.

The preponderance of ore in the silver veins will be of milling grade, with bands or lenses of very high grade smelting products which will have to be carefully broken and handled as some of it runs well into the thousands of ounces silver to the ton.

DEVELOPMENT:

The property of Gold Crown has been developed to date by three cross-cuts tunnels known as Levels Nos. 1, 2, and 3. The distance from the portal of No. 1 cross-cut to Big Prince vein is 185. feet. On this level a total footage of 1,545 feet has been driven, with 860 feet of driving on the vein, the balance of 685 feet being in cross-cut and exploratory work. From portal of No. 2 tunnel to the vein is 390 feet with 370 feet of drifting on the vein and 50 feet of cross-cutting and exploratory work. From portal of No. 3 tunnel to vein is 680 feet with 240 feet of drifting on the vein and 10 feet of cross-cut. Between Tunnel No. 1 and No. 2 a raise has been driven connecting the two, which is 60 feet long. This makes a total footage of 3,295 feet of cross-cuts, drifts and raise. On the copper condition is a shaft 200 feet deep, which can be taken advantage of later on in the development of this part of the ground. On Velvet claim there is a tunnel 50 feet long. The Left Over claim has about 150 feet of work which was done for assessment. The balance of the claims have no development work done on them, with the exception of location

and title work.

EQUIPMENT:

The Gold Crown is equipped with a well filled compliment of mining tools, drill sharpener, blacksmith shop, a new one-ton truck, a three-hundred-twenty-five cubic foot air compressor driven by a 50 H. P. motor. The compressor and motor are housed in a substantial building. The property has no camp building. Camp accommodation is had at Swastika camp which is situated less than a quarter of a mile from the main workings of Gold Crown.

HISTORY OF PECK MINING DISTRICT:

The Peck Mining District, Yavapai County, Arizona was discovered June 18, 1874 by T. M. Alexander, Wm. Cole, E. G. Peck and Hon. C. C. Bean. In a statement published Feb. 27, 1903, Hon. C. C. Bean says as follows:

"We went from Prescott on the 11th day of June 1874, The party consisted of Tom M. Alexander, Wm. Cole, E. G. Peck and myself. On the 18th day of June we discovered what was afterwards known as the Peck Mine. We made five locations on it. The original location was called "The Peck." The Peck proved to be a very valuable property which produced in profits some three millions of dollars."

About April 1875 the Silver Prince and Black Warrior claims were located and a fortune was taken from shallow workings between the dates of 1875 and 1890. About that time the Curtain claim--now belonging to the Gold Crown--was located and patented but no development of any consequence was done. In 1910 the Swastika Development Company was organized to operate the Prince and Black Warrior. From 1910 to 1923 some ,500,000 ounces of silver

was taken from this property at a good profit to the operators. In 1920 the Curtain claim--along with other claims which now constitute the property of the Gold Crown--was acquired by Mr. Richard Kingdon who proceeded on a campaign of development which has brought the property to its present status.

PRODUCTION:

Reference is made to the maps that accompany this report for detail of development work. The steep hillside favored the development of the veins to a depth of about three hundred feet by tunnels. On No. 1 Level an ore shoot was encountered which was worked to No. 2 Level. This ore shoot produced \$36,878.42, after transportation charges and smelter charges had been paid. The above production took place between July 1923 and August 1924 at which time operations were suspended. In 1928 operations were resumed and No. 3 Cross-cut Tunnel was completed to the Big Prince vein. This tunnel cut ore as soon as it reached the vein. Three carloads have been shipped since August 28, 1928 to date which have returned \$11,798.84. This ore was taken from development work along a distance of 180 feet on the 300 foot level.

ORE IN SIGHT:

Due to the fact that no connection has yet been made between Level No. 2 and Level No. 3 and no sinking has been done on the ore shoot below Level No. 3, the writer can only make an estimate as to ore in sight. However, the habit of high grade ore shoots extracted from the Swastika property and the ore shoot extracted from Dold Crown may safely

The maximum cost per ounce of producing silver, including transportation and smelting at this property will not exceed 30 cents. That allows for 5 per cent. deduction on silver, made at smelters. We therefore have, with silver selling at 58 cents per ounce:

Gross 652,900 Ozs. @ 58¢ =	\$378,682.00
Less cost breaking and marketing,.....	<u>195,870.00</u>
Net Profit	\$182,812.00

CONCLUSIONS AND RECOMMENDATIONS:

Summarizing the different advantages in favor of the Gold Crown Silver Mining Company's properties, attention is drawn to:

- (1) The mineral belt on which it is located and its close proximity to other noted mines with the same geological characteristics.
- (2) The high grade of the different ores from several workings.
- (3) The adaptability of the ores to direct smelting and milling.
- (4) The fact that the formation is favorable for economical mining.
- (5) The nearness to railroad and smelters.
- (6) The further important fact that water is abundant for milling purposes.
- (7) That it has been proven that ore bodies without diminishing of values go to five hundred feet in two neighboring mines and the values have not bottomed at that point.
- (8) Consideration of all these favorable conditions warrants the recommendation of the Gold Crown Silver Mining Company's property as being an excellent basis for profitable

be taken as an example and computations made therefrom.

The writer carefully sampled along 180 feet of the ore shoot taking samples every five feet and assayed his samples personally.

Estimate of ore shoot on 300 Level of Gold Crown Silver Mining Company is as follows:

Ore exposed by drifting on Oct. 15, 1928-180 feet long,

Estimated depth, vertical extension -120 " "

Average foot assay per sample and assays 86.3 Ozs. per ton,

Average width of vein per samples 5.2 feet,

Estimated tons $\frac{180 \times 120 \times 5}{12} =$ 9,000 tons

Estimated gross silver contents 9,000 c 86.3 = 776,700 Ozs. Silver,

Estimates of same ore shoot based on drift excavations to date October 15, 1928.

Total excavation - 525 tons

Produced shipping ore -175 tons @ 150 Ozs. per ton

Produced Milling ore -350 " " 26 " " " "

On above production basis 9,000 tons will produce

3,000 tons @ 150 Ozs. silver per ton - 450,000

6,000 tons " 26 " " " " " 156,000

Total 606,000 Oz, Silver.

OTHER ESTIMATED RESERVES:

100 Foot Level, Stops fill - 1,000 tons @ 30 Ozs. = 30,000

200 " " Dump milling ore 300" " 26 " " 7,800

300 " " " " " 350" " 26 " " 9,100

Total Ozs. Silver 46,900

Making a total of 652,900 ounces Silver.

The given ore reserves are not by any means total expected ore reserves, but what can be termed the positive ore reserve.

mining operations; where ore deposition on an extensive scale is foretold by characteristics which, from long experience in the majority of instances shows, are the guide to mines.

I would recommend that further development be along the lines already established, that is to say:

That driving on the strike of the different veins be continued with various cross-cuts, to thoroughly prospect the ground. Raises should be run from the 300 level to the 200 level and a winze should be sunk on the ore shoot on the 300 level to determine the extent of the ore. I am of the opinion that depth is very desirable on this property and I strongly urge that plans be laid to go to the thousand foot level, believing that many high grade ore bodies will be found. I wish to call attention to two tunnel sites that might be taken advantage of. One is in the canyon on the level of Peck Siding. This would give a stoping back 590 feet to the level of the tunnel No. 2. The length of the tunnel would be approximately twenty-five hundred feet. The other tunnel site is close to Switch #4 in Huff Gulch and the distance to drive would be thirty-five hundred feet which would give a back of 910 feet. The portal of this suggested tunnel would be not to exceed a mile and half from Middleton, the railroad shipping point.

The suggestion of the tunnel should be given due consideration as a tunnel at this point would serve all of the silver veins as well as develop the copper condition at a depth of over one thousand feet.

It is the opinion of the writer that a large profitable mine will be developed on the property of the Gold Crown Silver Mining Company and he recommends it as a

splendid mining venture which warrants all the development outlined in this report.

Respectfully submitted,

(SIGNED) F. W. GIROUX.

Gleeson, Arizona,

November 20, 1928.