



CONTACT INFORMATION

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03/20/90

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: CRITIC MINE

ALTERNATE NAMES:

LA PAZ COUNTY MILS NUMBER: 43

LOCATION: TOWNSHIP 7 N RANGE 13 W SECTION 11 QUARTER SE
LATITUDE: N 33DEG 57MIN 29SEC LONGITUDE: W 113DEG 34MIN 40SEC
TOPO MAP NAME: SALOME - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

COPPER
GOLD LODE
SILVER
BARIUM BARITE

BIBLIOGRAPHY:

KEITH, S.B., 1978, AZBM BULL. 192, P. 144
ADMMR CRITIC MINE FILE
USGS BULL 451, P. 116-119
ADMMR CENTROID CONSOLIDATED MINE FILE
COPPER HANDBOOK, 1910-1911; 1918
AZ MNG JNL, MARCH 1919, P. 37
ADDITIONAL WORKINGS IN T7N-R13W SEC 14 NE4
ADMMR CRITIC MINE COLVO FILE

CRITIC MINE

YUMA COUNTY

USGS Bull. 451 p. 116-119

Ariz. Mng. Journal March, 1919, p. 37

See: Centroid Consolidated Mine (file)

BG&MT Bulletin 192- page 144

Copper Handbook 1910-11 and 1918

MILS Sheet sequence number 0040270173

Geology File - Cunningham Pass District Report by Tovote W., 1918

NAME OF MINE: CRITIC

COUNTY: YUMA W
DISTRICT: CUNNINGHAM PASS
METALS: CU

OPERATOR AND ADDRESS:

MINE STATUS

DATE:

DATE:

Rhoda H. Noblechek *Rhoda*
Wenden, Arizona

1/44

Accessibility loan granted
Shut down--In newly re-
stricted Butler Valley
Army Range.

*1/65 Estate now belongs
to Ned Buchanan
of Mesa*



Rocks to Riches

May 9, 1945

Carte

Mrs. Rhoda Nohlecheck
Wenden, Arizona

Dear Mrs. Nohlecheck:

You have probably found out by this time that the Government has withdrawn its restrictions and you are again free to enter on your property at Cunningham Pass.

In regard to a damage claim Mr. Broadgate suggested that all of you people out there who have been damaged should get together and employ an attorney. This department would be glad to help in any way possible but cannot do the actual attorney's work.

I believe that Ed Mills, Bill Harris and Tom Rodgers should also be interested - possibly others. But someone will have to take the lead.

Yours sincerely,

Chas. H. Dunning
Director

CHD:LP

Critic. Mine,
Wenden, Arizona. November 8th 1942.

Mr. W.J. Graham,
413 Home Builders Bldg.
Phoenix, Arizona.

My dear Mr. Graham:-

Your letter of November 4th received and I immediately asked Mr. Saunders about his telling Mr. Hargus that he had no objections to goats grazing on his claim, and he immediately assured me that he did not make any such statement to Mr. Hargus.

However he owns only one-half interest in all these claims he refers to, I holding the other half interest I fail to see how this would give Mr. Hargus associate a right to graze on this ground. As to flagging these claims, they are in several bunches stretching across the canyon and should I flag my claims and the owners of other claims in this canyon it would be impossible for Mr. Hargus associate's goats to get in or out of the government claim in fact there would not be sufficient ground left to make it worth while for the goats to try and graze thereon, and the water crops out on the ground only in one place on government ground where they have been watering. These goats having watered from water either on the claims of myself or claims of McDonald, Martinez, or Trainor.

I have just made a trip the whole length of this territory and find that the claim owners have been damaged already irreparably as the whole mountain has been so plowed up that when the rains really commence the rocks that are loosened up and the earth will slide down completely covering up the side hill trails and roads. Already boulders and earth have slid down covering up the trails, and road and we have had out one rain. These trails have been in tack over thirty years and have not been damaged by the rains.

A road that was put into the property at a cost of over ten thousand dollars has been completely taken out in places not from the stream, but from rocks and earth coming down the side hill, a portion of the road build by Mr. Saunders and myself at considerable cost, last year, has been entirely wiped out by the slide of earth and rocks down the side hill.

This Cunningham Pass district was set aside years ago as a Mineral District long before the Grazing Board was ever thought of, there is scarcely a foot of ground in this section that has not at some time been located, with these goats on the ground no

prospector will come into the country and work on the veins exposed on the open government ground and this once productive ground is now turned into a nasty goat run.

I am making out a petition and will send around to the other claims owners and have them sign and if the goats are not then taken out of this section I shall have to see if I can not collect damages for the loss they have inflicted on me and my neighboring claim owners.

Very truly,

Rhodan Hatch Koblebeck

November 4, 1942

Mrs. Rhoda Hatch Nohlecek
Wenden, Arizona

Dear Mrs. Nohlecek:

I visited the Grazing Division and informed them that sheep and goats were destroying trails on your mining claims and that you objected to the grazing on your claims. I also mentioned that other claim owners in the vicinity objected.

They showed me their files, which contained a report, that a Mr. Saunders stated he had no objections to their grazing on his claims, after he had been requested by the graziers to flag the points on which his group of claims were located, in order that they would know where to keep away from grazing.

Mr. Blake of the Grazing Division stated, if in some manner the owners of a group of claims would flag the boundaries of their claims to indicate mine locations, he would see to it that graziers respected the mine location rights and cease grazing on such property.

The Grazing Service officials clearly indicated their recognition of the rights of mining claim owners, and that they were willing to cooperate in recognition of the claim owners rights, if only the forbidden grazing territory was flagged so the grazier would know where he must keep away from.

Yours very truly

W. J. Graham
Assistant to the Director

WJG:BA

Damage to mine property
by goat grazing

October 23, 1942

Mrs. Rhoda Hatch Nohlecek
Wenden, Arizona

Dear Mrs. Nohlecek:

I recently had a lengthy conference with Mr. Brooks, who is in charge of the Grazing Division (not the same party you interviewed) and submitted to him definite proof of the rights which maintain to a valid mining location.

This proof showed that a mining claim locator, by complying with the Federal law relating to the valid location of a claim, and complying with the conditions set out to maintain title to a claim, acquired possession and ownership that no governmental agency rulings could deprive the owner of his exclusive rights of the surface of the claim.

I told Mr. Brooks most mining claim owners had no objection to cattle grazing on their mining claims, but did object to the destructive grazing of sheep or goats.

Mr. Brooks advised me that he would co-operate with our Department in an endeavor to prevent friction between stockmen and mine claim owners by definitely advising grazers that they had no grazing lease rights on valid mine claim locations.

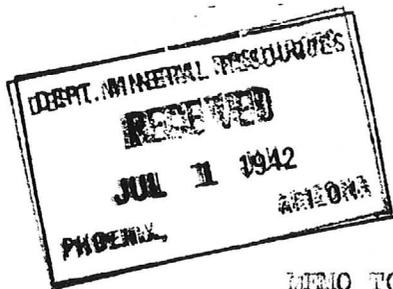
Trusting you will not be further bothered by sheep or goats grazing on your properties, I remain

Yours very truly,

W. J. Graham
Assistant to the Director

k

Write Mine



Washington, D.C.
June 29, 1942

Handwritten initials "JW" in the upper right corner of the page.

MEMO TO DON GUSTIN:
Re; Nolacheck application.

This application was filed way back in Oct. 2, 1936, when times were much differente

If the Nolacheck property is still in need of money, the owner should be advised to file a new application in the class most suitable, referring to the data already filed with the prior application, and adding such additional information as has been obtained since.

The date would indicate that the Nolacheck application was filed on a gold or silver property, as strategic and critical minerals were not eligible at that time.

So your correspondent probably does not understand the situation.

Bill Broadgate

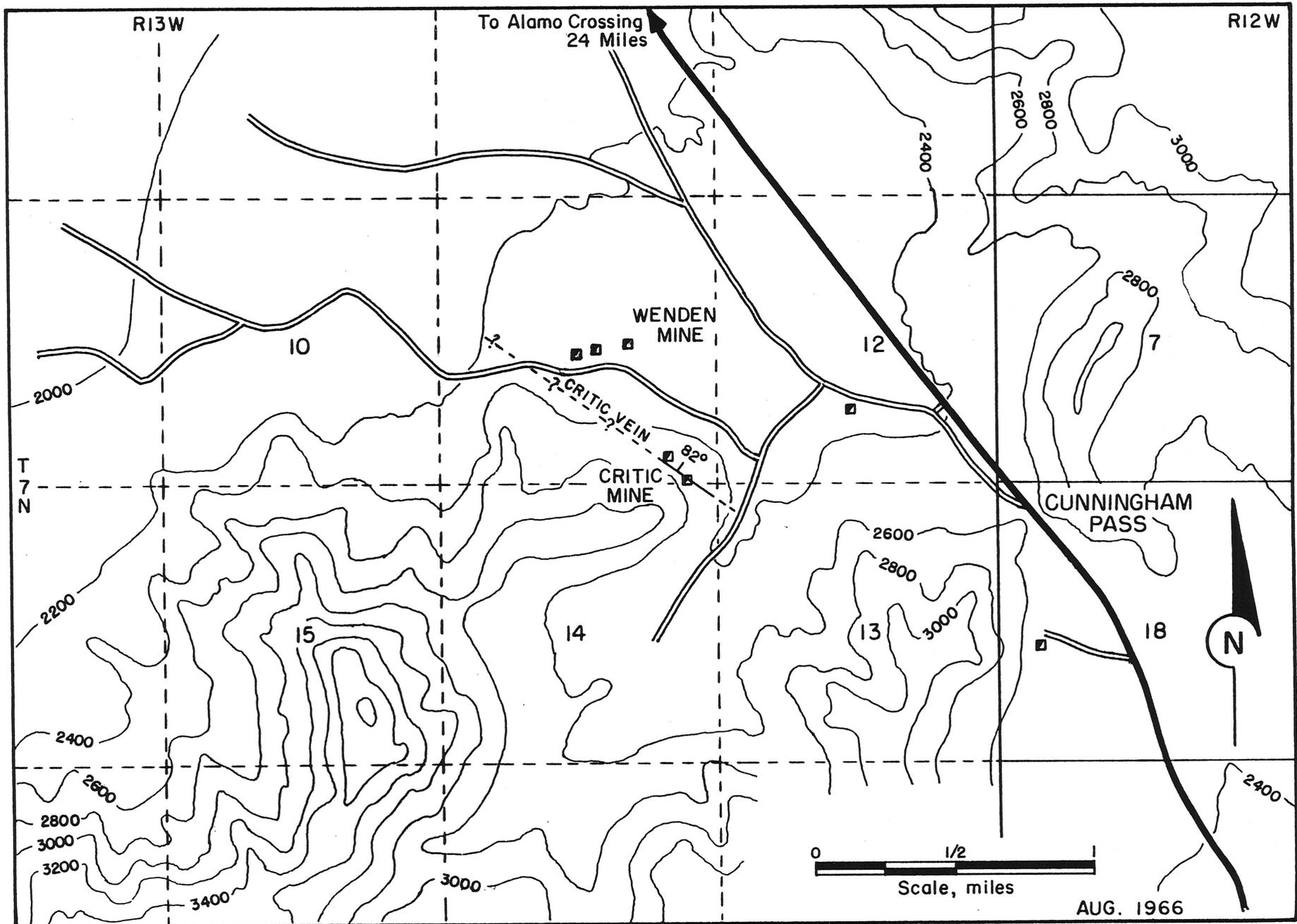


FIGURE 2.- Topographic and Access Map, Critic Mine

CRITIC MINE

YUMA CO.

KP/WR 11/28/79 - Ned Buchanan reported he is working his Critic Mine (Harcuvar Mining District, Yuma Co.) He is trying to arrange for a milling facility either on the property or custom.

KAP WR 4/2/80: Ned Buchanan reported that he is doing some pilot plant cyanide leaching at his CRITIC MINE, Yuma County. At this point he has tried a 10-ton lot with a 6-day leaching cycle.

NJN WR 7/30/82: Ned Buchanan reported he still holds 35 claims in the Cunningham Pass area, Yuma County. Recently he has had Fred Jenkins of Santa Fe Mining interested in looking at the property.

NJN WR 8/13/82: Ned Buchanan visited and reported that Fred Jenkins with Santa Fe Industries has been expressing an interest in doing some sampling at his Critic Mine Property, Yuma Arizona.

RRB WR 3/1/85: J. Paul Stevenson of J. Paul Stevenson & Associates, 418-736 Granvill St., Vancouver, BC V6Z 1G3 (604) 687-5995 reports that they have leased the Critic Mine, Cunningham Pass District, Yuma Co. from the Buchanans. He said that preliminary assays indicate that there are 50,000 tons of ore grading 3% copper, .3 oz/ton gold at 40% silica on the dump. They are currently evaluating the underground and report that the timbers are in excellent condition and that there is broken ore in the stopes. He is now looking for an ore buyer or custom mill to ship the ore to. The lease calls for the payment of a percentage of the net smelter returns with a minimum royalty due each month.

MG WR 3/29/85: Mr. Dick Park of the BLM reports that his office has received a notice of intent to begin heap leaching operations in the area of the Critic mine (La Paz County). The operator is Rococco Resources, Ltd., Vancouver, B.C. Canada.

NJN WR 5/17/85: Dick Parks of the Phoenix BLM office reported that Rococco Resources, Ltd. is planning to cyanide the dumps of the Critic Mine, La Paz County.

CRITIC MINE

YUMA COUNTY

No Activity. TPL WR 6-16-58

Conference with Paul Edwards and Del Peterson

According to Paul Edwards (who with his brother, Merle, form the Edwards Bros. Trucking Co.) 2300 W. Broadway, Phoenix (276-2489). They are screening the Critic dump and transporting the fines to their Broadway lot, where they are concentrated in a Remer Jig (5" x 11"), with double up and down motions created by eccentrics, and purchased from Western Machinery Co. (Jig was originally owned by Stoval Manganese Co.). The screenings averaged about 2.25 per cent copper and appreciable gold and silver to ton. Shipments to Douglas, of the Critic dump material by Edwards Bros., in 1953 (dump-run) averaged 1.66 percent copper. A carload of concentrates from Critic material was just sent to Inspiration but returns are not in yet. Edwards felt they should run 10 percent plus of copper.

A 70-ton car of combined Critic and Kay Copper dump concentrates netted 5.7 percent copper and \$4.00 in gold and silver. This car was mostly from the Kay dump. The Kay dump material concentrates with an 8½ to 9 to 1 ratio of concentration, but the percentage of extraction on either is not too good so all rejects are stockpiled for possible flotation later on.
LAS Memo 5-24-66

Mr. Ned Buchanan visited office 10-10-68 and said he owns this property and it is for sale.
FTJ 10-10-68

MINE - MINERAL RESEARCH
AND LOCATION

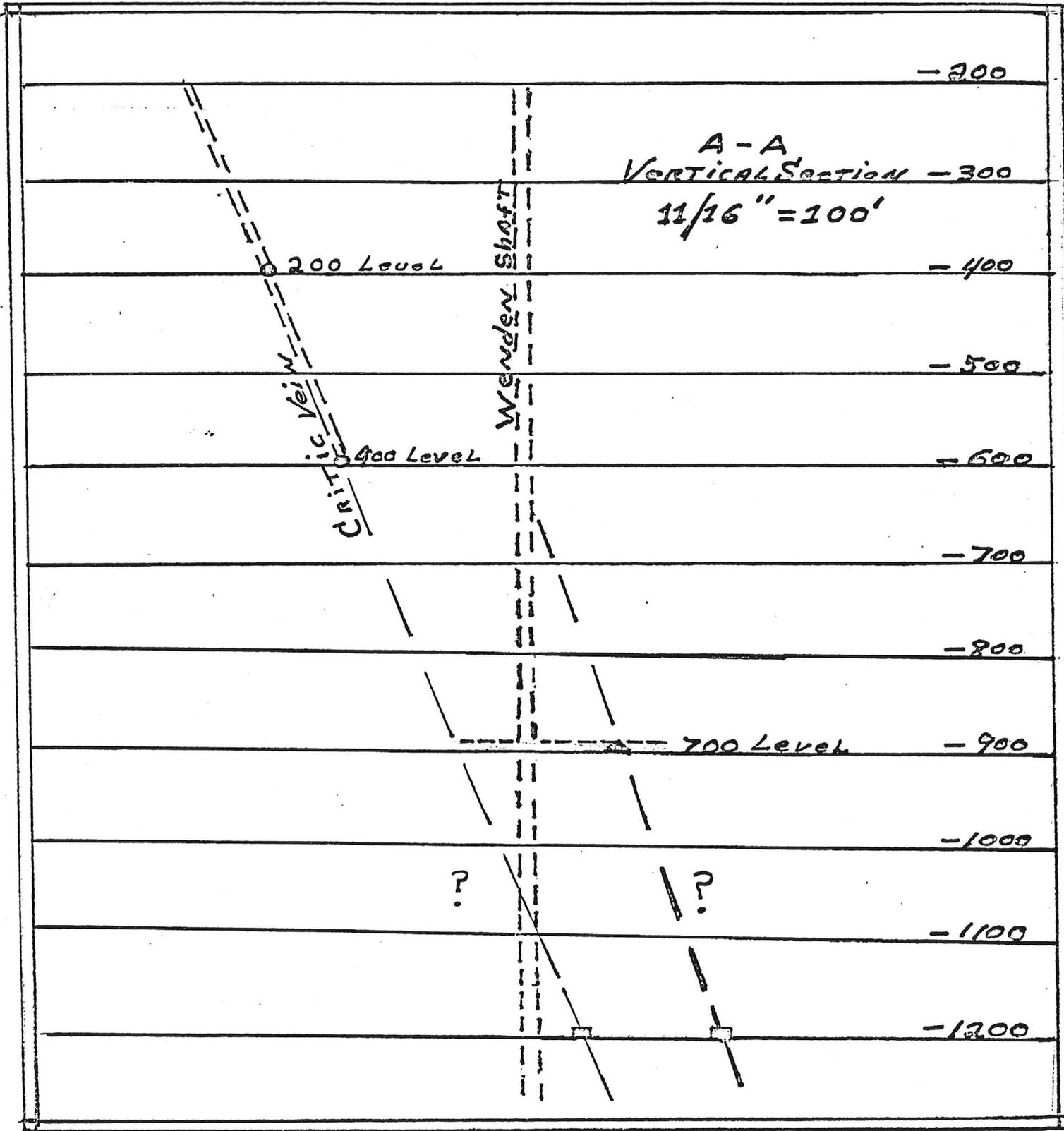
MINING CONSULTANT

NED BUCHANAN

CRITIC MINE
~~XXXXXXXXXX~~
WENDEN, ARIZ. 85357

OFFICE
125 WEST NINTH ST.
MESA, ARIZ. 85201
TEL. - AREA CODE 607
MESA 969-0712

COLLISION COURSE OF THE CRITIC AND WENDEN VEINS



CRITIC MINE (f) K
H/S

1710-608 GRANVILLE ST.
P.O. Box 10363 STOCK EXCHANGE TOWER
VANCOUVER, B.C.
V7Y 1G8
883-7265
(AREA CODE 604)

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George Cross News Letter

Reliable Reporting

NO. 15 (1985)
JANUARY 22, 1985

NO. 15 (1985)
JANUARY 22, 1985

WESTERN CANADIAN INVESTMENTS ROCOCCO RESOURCES LTD. (RCO-V)

K2
AZ

CRITIC MINE ARIZONA NOW UNDER OPTION - J. Paul Stevenson, president of Rococco Resources Ltd. has reported that a letter of intent and memorandum of understanding has been signed with Ned Buchanan of Wenden, Arizona to option the right to acquire a mining lease on the Critic Mine and 31 unpatented claims in Ellsworth mining district, Yuma county, Arizona. Acquisition terms are: \$7,000 US cash now paid, minimum \$25,000 US exploration within 12 months and all production is subject to 5% of net profits payable to the owner. The Critic is a former copper/gold producer with a production average of 11.5% copper, 0.75 oz. gold/t.

According to a mineral survey made available to Rococco by the owner, there are surface dumps of varying tonnage and of good grade ore on the Critic mine site that are ready for shipment to the smelter. An exploration program to develop both the mining claims and verify the dump grades and tonnages is now being prepared. Dump samples reported earlier assayed 0.2 and 0.53 oz. gold/t.

REPORT OF THE CRITIC MINE AND GROUP

October 4, 1968

Submitted by Owner Ned C. Buchanan

In making this report I had to consider whether historic shipments and other information would have any relation to the mines present potential to produce ores profitably under the contemporary concepts of mining. One could be justified in asking why isn't the property presently producing ores, especially since it has produced in the past. This question would more likely come up than if it were a newly-discovered property. Therefore, since the property is not working presently and also because development has been interrupted by confiscation and a series of litigations which has only recently been resolved, I am devoting a considerable space to its historical features.

Most of the shipping receipts of the property are not available but will enter a few that are. Information for this report was acquired from Mrs. Nohlechts' records of correspondence, William A. Buchanan, Mine Superintendent for the Wenden Copper Mining Company and my own personal experience with the mine. The other additional reports will be self-explanatory.

Critic History:

The "Critic" vein was discovered in about 1902 by J. W. Boone. The Cunningham Pass Copper Mining Co. was subsequently formed. Later in about 1913 or 1914, George Leighton acquired and held control until 1923 when title passed to Mr. and Mrs. Joe Nohlechk of Wenden, Arizona. During the interim that George Leighton had control there was a dispute over the title to the property.

At this point I would like to describe the configuration of the property. The East side or Boone shaft side is a 160' incline and the Critic or West side is a 400' vertical shaft. The two workings are connected by approximately 500' of drifts and 200' of winzes; being connected on the 110' level of the East side and 150' and 300' level of the West side. Water stands in the shaft just below the 300 ft. level in the Critic shaft.

The Nohlechts began their operations on the West side on the 300' level. They extended a drift 400 feet where they encountered a good producing vein consisting of chalcopryite and chalcocite. Ore shipments were made to Consolidated Arizona Smelting Co. at Humboldt, Arizona and to Phelps Dodge Corporation, Douglas, Arizona and American Smelting and Refining Co. at Hayden, Arizona.

Concurrent with the work on the 300' level they drifted on the 375' and 400' levels. On the 400' level they sank two winzes of 40' and 85', encountering an ore body of undetermined size.

In reading the Nohlechk correspondence and from what she told me - that when George Leighton became aware of the ore body below the 400' level, he brought court action against the Nohlechts and had them removed from the property and the ensuing lawsuit resulted in the title of the property passing to the Nohlechts.

After the Nohlechts returned to the property in about 1924 they installed a 25 ton flotation plant which operated up until Mr. Nohlechk's health failed and he passed away.

CARTER GLASS, VA., CHAIRMAN

KENNETH MCKELLAR, TENN.	GERALD P. NYE, N. DAK.
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ELMER THOMAS, OKLA.	HENRY CABOT LODGE, JR., MASS.
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RICHARD B. RUSSELL, GA.	WALLACE H. WHITE, JR., MAINE
PAT MCCARRAN, NEV.	CHAN GURNEY, S. DAK.
JOHN H. OVERTON, LA.	C. WAYLAND BROOKS, ILL.
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BURNET R. MAYBANK, S. C.	

EVERARD H. SMITH, CLERK
JOHN W. R. SMITH, ASST. CLERK

United States Senate

COMMITTEE ON APPROPRIATIONS

October 29, 1942



Cartic

Mr. J. S. Coupal, Director
State Department of Mineral Resources
413 Home Builders Building
Phoenix, Arizona

My dear Sam:

I believe you may be interested in the attached copy of a reply sent to me on October 28 by Honorable Charles B. Henderson, with respect to the loan application filed by Mrs. Rhoda Hatch Nohlecek of Wenden, Arizona, under the Class C mine loan program. This is just for your records and requires no reply.

With kindest personal regards, I am,

Yours very sincerely,

Carl Hayden

RECONSTRUCTION FINANCE CORPORATION
WASHINGTON

October 28, 1942

Honorable Carl Hayden,
Senate Office Building,
Washington, D. C.

My dear Senator Hayden:

On October 1, 1942, your office formally submitted an application by Mrs. Rhoda Hatch Nohlecek of Arizona for a preliminary development loan and you requested that we advise you regarding the action taken by this Corporation on Mrs. Nohlecek's application.

It is my pleasure to inform you that Mrs. Nohlecek's application was considered by this Corporation on October 26, 1942, and that a loan of \$5,000 was approved to her.

With kind personal regards,

Sincerely yours,

CHARLES B. HENDERSON
(signed)

COPY

Critic Mine

Salome 15' (sec. 11+14, T. 7 N., R. 13 W.)

Yuma County

References: Arizona Dept. of Mineral Resources
Critic Mine Yuma County (file)

current owner: Ned Buchanan, 125 W. Ninth Street,
Mesa, Arizona 85201 or Critic Mine, Wenden,
Arizona 85357 (as of 1968 records)

previous owners: Mrs. Rhoda Nolencheck + Co.,
Wenden, Arizona

history of the mine:

has been operated continuously by
Mrs. Nolencheck since about 1917, ~~at~~
According to a 1940 report the average
grade of shipping ore is around \$50.00
per ton for gold, silver, and copper. From
1917 to 1940 it was estimated that the
mine had produced \$500,000. Major
production ceased by 1953. The Critic Mine
was owned by Mrs. Nolencheck's estate
in 1959. Ned Buchanan later became
owner and was trying to sell the property
as of 10/10/68.

veins:

two veins ranging 1 to 7 feet wide
traverse the property with a strike of
NW-SE and dipping 80° NE. The veins are
75 feet apart at the surface but only
35 feet apart at 410 feet of depth.

Critic Mine (cont.)

ore (according to 1940 report):

estimate 40,000 tons of ore on dumps
and in mine fills with an average
assay of \$8.00 per ton in gold, silver,
and copper.

also, there is probably an equal
amount of ore blocked out in the mine,
assayable at about \$10.00 per ton in the
gold, silver, and copper.

Chalcopyrite and chalcocite characterize
the ore.

CRITIC MINE

MINERAL SURVEY NO. 2468

HARCUVAR MINING DISTRICT, YUMA COUNTY

SITUATED IN SECTION 14, T. 7N; R. 13 W

TONNAGE AND ASSAYS COMPILED FROM 1934 REPORT OF C. M. DAVIS, M. E.

	<u>TONS</u>	<u>% COPPER</u>	<u>GOLD OZ.</u>	<u>TOTAL COPPER LBS.</u>	<u>TOTAL GOLD OZ.</u>
** DUMP AT MINE SHAFT	4,000	2.3	.10	184,000	400.00
	280	11.6	.692	64,960	193.76
ORE HOUSE DUMP	3,000	2.6	.541	156,000	1,623.00
WHIM DUMP	1,427	1.5	.08	42,810	114.16
	75	11.6	.692	17,400	51.90
TUNNEL DUMP	270	2.4	.15	12,960	40.50
	15	11.6	.692	3,480	10.38
			<u>TOTALS</u>	<u>481,610</u>	<u>2,433.70</u>
FILLED STOPES C LEVEL	798	1.0	.30	15,960	239.40
	47	11.6	.629	10,904	29.563
300 TO 400 FOOT LEVEL	625	2.4	.10	30,000	62.50
EAST	37	11.66	.629	8,628	23.273
WEST	3,780	2.4	.10	181,440	378.00
	226	11.6	.692	52,432	156.392
FAULT TO 300 FOOT	450	2.6	.15	23,400	67.50
LEVEL	27	11.6	.692	6,264	18.684
			<u>TOTALS</u>	<u>329,028</u>	<u>975.308</u>

<u>POTENTIAL ORES</u>	<u>TONS</u>	<u>% COPPER</u>	<u>GOLD OZ.</u>	<u>TOTAL COPPER LBS.</u>	<u>TOTAL GOLD OZ.</u>
** C LEVEL EAST OF FILLS AND IN BACKS	2,166	2.0	.40	88,640	866.40
C AND D LEVELS INCLUDING BLOCK TO SURFACE	5,250	6.0	.25	630,000	1,312.50
300 AND 150 FOOT LEVEL	18,266	5.0	.15	1,826,600	2,739.90
400 TO 300 FOOT LEVEL	16,333	5.0	.15	<u>1,633,300</u>	<u>2,449.95</u>
			<u>TOTALS</u>	<u>4,178,540</u>	<u>7,368.75</u>

GRAND TOTAL OF BROKEN AND POTENTIAL ORES:

GOLD:.....10,777.76 OUNCES
COPPER:.....4,989,178.00 POUNDS

** Due to ores shipped since the C. M. Davis report, tonnage estimates have been reduced by 666 tons on dump at mine shaft, and 500 tons on Potential of C Level East of Fills and in Backs.

6-13-79

This is a revised
 Report of the Tonnage
 and Assay Report
 Filed 7-12-69

CRITIC MINEMINERAL SURVEY NO. 2468HARCUVAR MINING DISTRICT, YUMA COUNTYSITUATED IN SECTION 14, T. 7N; R. 13 WTONNAGE AND ASSAYS COMPILED FROM 1934 REPORT OF C. M. DAVIS, M. E.

	<u>TONS</u>	<u>% COPPER</u>	<u>GOLD OZ.</u>	<u>TOTAL COPPER LBS.</u>	<u>TOTAL GOLD OZ.</u>
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ORE HOUSE DUMP	3,000	2.6	.541	156,000	1,623.00
WHIM DUMP	1,427 75	1.5 11.6	.08 .692	42,810 17,400	114.16 51.90
TUNNEL DUMP	270 15	2.4 11.6	.15 .692	12,960 3,480	40.50 10.38
			<u>TOTALS</u>	<u>481,610</u>	<u>2,433.70</u>
FILLED STOPES C LEVEL	798 47	1.0 11.6	.30 .629	15,960 10,904	239.40 29.563
300 TO 400 FOOT LEVEL EAST	625 37	2.4 11.66	.10 .629	30,000 8,628	62.50 23.273
WEST	3,780 226	2.4 11.6	.10 .692	181,440 52,432	378.00 156.392
FAULT TO 300 FOOT LEVEL	450 27	2.6 11.6	.15 .692	23,400 6,264	67.50 18.684
			<u>TOTALS</u>	<u>329,028</u>	<u>975.308</u>

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CRITIC MINE

List of Buildings, Machinery & Equipment at 400 Shaft.

One Building over machinery at 400 ft. Shaft 80x30	\$1,000.
One Fairbanks Morse engine & Hoist 25 HP	1,000.
" " " 40 HP Engine	1,500.
One 12x7-1/2 x14 Sullivan Compressor	2,000.
Miscellaneous bolting, pulleys and small equipment pipe fittings	100.
One water bucket	100.
2 Ore buckets	100.
One ore bin 20x20 Sorting table Grizzly etc.	150.
One 20x20 ore bin 6 ft. high	100.
1 Ore truck	25.
1 Cross head	25.
1 Callon Wheel	50.
One 12 x 12 Cement tank	60.
One 15 x 15 Cooling tank	75.
One Callon frame	500.
One cage and skip	100.
Timbering in 400 ft. Shaft	5,000.
Blacksmith shop	50.
One cummeron pump	100.
2 Compressor Tanks	200.
650 ft. rails on dump and ties	150.
2 Centrifugal Motor pumps	50.
one - 100 gallon fuel tank	25.
Pipe fittings, cuplings, road, etc. round blacksmith shop and engine room	150.
3" and 2" pipe, 400 ft. in shaft & 500 ft. in each of three levels and up to stopes approx. 2000 ft. of each	2,000.
Halls through drifts	1,000.
2 Cables	100.
Miscellaneous equipment, compressor parts, wrenches, etc.	100.
	<u>\$19,000.</u>

Full Equipment of Flotation Mill

2 Ball Mills, 20 ton,	
1 Classifier, Akins,	
1 Kraut 30 to 60 ton Flotation Machine	
1 Dodge Crusher	
1 Challenge Feeder	
1 small compressor	
1 2 HP engine	
1 15000 Galvanized water tank, 2 2000 gal. tanks	
1 Fairbanks Morse Diesel Engine 50 HP	
5 Cement settling tanks, 12x6 Rails, pipe, valves, etc.	\$20,000.

East side shaft and workings

One Callon Frame	700.
125 ft. of 4x4 skids	100.
One 8 HP engine and hoist	300.
200 ft. rails on dump	100.
One bin	100.
Sorting bin, Grizzly and sorting table	100.
One Compressor	200.
Cable, 300 ft.	75.
Ball and Ore Buckets	125.
100 ft. track in mine	100.
Shaft & timbers 150 ft. deep	300.
In drifts 175 ft. rails and ties	175.
Timbering in Drifts	200.
One automobile compressor and engine	200.
Total amt. of equipment at 2 shafts and mill \$33,500.	<u>\$33,500.</u>

CRITIC MINE

SURFACE:

Starting with the west end line, which is represented by the west border line on the blue print. From this point going east there are no surface exposures for about 550 feet. From this point east 520 feet, the ores have been stoped through to the surface averaging about 5 feet in width with the exception of some pillars, which in most places were left to support the ground in place of timbering. There must have been some very fine ore mined here as the dumps are small for so much stoping. Continuing from this point east there has been but little surface work performed, but there are several exposures well worth investigating that give promise of ore below.

MINE EQUIPMENT.

- 1-25 H.P. Fairbanks Morse hoisting engine
 - 1-40 H.P. " " compressor engine
 - 1-12x14x7 1/2 Sullivan Compressor,
 - 3 Sullivan Machine Drills, with some steel
 - 3 Ore cars,
- Most of the mine is fairly well tracked.

MILL EQUIPMENT.

- 1-50 H.P. Fairbanks Morse Diesel engine
- 2-5 inch crusher
- 2-Herman Ball mills,
- 2-Kraut-Rota #33A Flotation cells.
- 1-Mine classifier.

DUMPS.

There is only one way the dumps can be handled as the values are practically all in the fines. I find that on an average 50% will go to fines, with 3% of the gross tonnage making a direct smelting product. This ratio applies to the filled stopes also. The following statements, estimates, are based on the fines of sorted ores available.

DUMP at Mine Shaft

Tons	Copper	Gold oz.	Total
4666 - - - -	2.5	.10	\$55,211.07
230 - - - -	11.6	.692	11,600.00

ONE HOUSE DUMPS

3000 - - - -	2.6	.541	27,000.00
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WHEM DUMP

1437 - - - -	1.5	.03	7,510.65
75 - - - -	11.6	.692	3,170.25

TUNNEL DUMP

270 - - - -	2.4	.15	2,400.00
15 - - - -	11.6	.692	311.00

9723 net tons - - - - - \$66,091.92

Copper at 0.3 Gold at \$34.40.

A or TUNNEL LEVEL

Practically all these ore have been stoped out. Pillars have been left in a number of places and no doubt some tonnage of both high grade and low grade ores can be mined from there. I have not included this in any of the estimates, it being too undetermined.

B. LEVEL

Between the two winzes there is a filled stopo 40x15x6 feet, this is not included in the estimates being too small, the remainder of the 53 feet is unbroken, leaving a small block of ore. The backs west of the second winze has from 5 to 15 inches wide by about 20 feet long of very fair gold values, ranging from \$6 to \$50 a ton.

C LEVEL

From the winze east, a distance of 110 feet there is an average of 3 feet of ore in the backs and bottom, this should average 6% copper and from \$6.00 to \$10.00 in gold, some of it is very high grade copper, showing glance, bornite and cuperite. West of the winze for 125 feet the backs have been stoped through to the level above, 150x40x3 feet, this is filled with low grade ore carrying more gold than copper values. There are several places in the bottom where I found the ore going down. From the end of the stopo to the winze below west there is nothing showing worthy of mention. This winze connects with the 150 foot level from the shaft, where I will begin when the " level has been described.

D LEVEL

From the bottom of the winze 100 feet east the ore ranges from 3 to 4 feet wide, in the backs and bottom of the drift and going ahead, with some very good ore present as in the level above. This block of ground to the east 50 feet more, and to the surface is being given as potential ore.

150 FOOT LEVEL

This is the most uninteresting level in the mine with only a very low grade ore showing. Yet when one looks at the map the potentiality of the backs seem to make it an important section. This is the first level connected with the shaft, in fact the shaft is the only possible connection with the workings below.

300 FOOT LEVEL.

This level when driven was practically a blank, no ores worth while being opened up during the work. Later the losses put a round of holes in the back, at the junction of the cross cut and the drift. This opened up the large ore body shown in the maps as a filled stopo which was in places 11 feet wide, carrying some very high grade ores. The drift is blocked 40 feet west and 60 feet east of the cross cut. The lagging has been shot away to get the ore from the filled stopo which was in places very rich with missed high grade ore. It is possible to get into the filled stopo only through the winze from the 150 foot level. The backs are too high from the fills to permit close examination. Practically all the ores represented by the smelter settlement sheets came from this stopo. The rest of the estimates of the high grade ores shipped are based on these known shipments. The length of the drift east of the cross cut on the level is given as described by the owners. I managed to get up the backs over the neck in the fill far enough to verify their statements of ore in the backs. I found from 4 to 6 inches of high grade ore with about 4 feet of milling ore in

place. This should prove a very fine stoppage from the mill with considerable direct smelting ore all through it. I understand the bottom of the drift and the face is all in ore, in that case these ores should have some connection with the body opened in C and D levels.

400 FOOT LEVEL

It was impossible to get on this level as the water was too deep. I went down the winze west of the cross cut on the 300 foot level to a point 36 feet below. At this point the vein has faulted and the mine was supposed to have bottomed here. A drift was driven west on the fault line 160 feet, and the ore stopped to the 300 foot level, and back filled. Between the winze and the fill a round of holes has exposed the ore below the fault line, here it is shown where it has shifted into the hanging wall, and gives promise of continuing down. Ore is already exposed in the drift east of the bottom of the winze, for 50 feet it shows 4 feet of milling and high grade ore in the face, backs and bottom. On the 400 foot level they have drifted on the barren streak, but from the showing below the fault the ore should be picked up on this level.

BELOW THE 400 FOOT LEVEL.

Here I must quote the owners again. I have seen some of the ore from there, and believe what they claim of it. In a 40 foot winze just east of the cross cut is ore from top to bottom showing pyrites. The assays from here show 3.77% copper and \$6.59 gold. In the extreme west end of the drift there is a winze 80 feet deep with streaks of ore showing in the bottom.

WATER POSSIBILITIES

About 2 1/2 miles north of the Critic mine where the wash which passes east of the mine joins the main wash on the south side of the valley, there is a fine indication of water, several wells in the valley near I am told are from 3 to 4 hundred feet deep with plenty of water. There are several properties near the Critic that have water in them, and should supply sufficient water for the present.

REMARKS

The dumps and fills should be milled at a good profit, they represent an only minor value compared with possibilities to be found in the mining of the ores. There are four showings with sufficient ore in sight to keep the mill going, and give a tonnage of sorted ore for the market for some time to come. Developing water and a few changes in the mill to increase tonnage and extraction, is all that is needed to begin producing. This is nearly all the information that I could get at the time. Am attaching copies of settlements from smelters, all the early sheets have been lost so it is not possible to get the exact production of the property. All values quoted are on .00% copper and \$34.45 gold.

Sincerely yours,
(signed) C.H. Davis.

LUMP ORE ESTIMATES.	NIKE SHAFT				Total Values
	Tons	Copper %	Gold oz.		
	4888 - - - -	8.03	.10		488,888.87
	200 - - - -	11.6	.692		11,500.00
ONE HUNDRED DUMPS	3000 - - - -	2.6	.541		27,000.00
WASH DUMP	1427 - - - -	1.5	.03		7,543.95
	75 - - - -	11.6	.692		656.02

TUNNEL DUMP

Tons	Copper %	Gold oz.	Total Value
270 - - - -	2.4	.15	\$2,450.00
15 - - - -	11.6	.692	655.82

FILLED STOPES C LEVEL

700 - - - -	1.0	.30	9,420.14
47 - - - -	11.6	.629	1,992.35

300 to 400 FOOT LEVEL

East

625 - - - -	2.4	.10	4,530.00
57 - - - -	11.66	.692	1,579.45

West

3780 - - - -	2.4	.10	27,518.40
226 - - - -	11.6	.692	9,598.14

Fort to 300 foot level

450 - - - -	2.6	.15	4,102.00
27 - - - -	11.6	.692	1,144.53

Potential ores, C level east of fills and in backs.

2666 - - - -	2.0	.40	45,300.00
C and D levels including block to surface			
5250	6.0	.25	95,002.50
300 and 150 foot level			
19266	5.0	.15	252,904.10
400 to 300			
16333	5.0	.15	214,942.25
48253			\$759,808.25

Copper at .08% Gold @ \$34.45.

SHELFER SETTLEMENTS.

Dry Tons	oz. Gold	Copper	Per Tons	Total
31.01	1.57	115.80	\$33.01	11173.00
20.53	0.93	20.42	102.87	2735.34
24.00	0.60	17.40	73.41	1692.41
23.11	1.20	13.79	111.00	2574.42
31.25	1.05	19.64	110.63	3137.63
23.42	0.55	10.83	34.42	850.00
23.73	0.35	4.64	15.53	259.73
23.31	0.13	3.55	10.03	154.41
21.45	0.14	7.44	24.57	476.21
15.45	0.33	3.10	8.19	57.31
23.12	0.70	5.43	11.50	210.23
23.23	0.57	7.67	30.53	630.67
31.55	1.20	5.60	21.93	512.42
21.92	0.31	17.92	97.10	2210.23
23.40	0.53	19.33	30.92	696.92
2.93	0.60	6.50	26.70	61.70
22.79	1.27	9.30	34.15	69.41
3.10	0.173	6.50	33.44	102.35
2.32	0.63	14.50	46.93	96.35
3.31	0.70	12.40	26.54	65.41
3.53	0.54	20.10	56.61	121.35
1.60	0.19	19.69	46.93	70.35
4.16	0.32	15.10	33.71	117.35
2.56	0.96	15.40	33.05	83.40
3.22	0.09	6.72	32.00	153.32
13.66	1.15	13.30	35.41	421.72
25.11	2.20	15.91	66.29	2021.65
1.05	1.90	9.82	73.23	73.27
13.40	0.53	13.20	63.07	1339.00

23,033.25

<u>Dry Tons</u>	<u>Oz. Gold</u>	<u>Copper</u>	<u>Per Tons</u>	<u>Total</u>
31.50	1.54	115.00	376.93	\$2854.84
45.54	0.92	20.51	109.16	4897.06
16.50	0.61	7.73	48.74	601.71
27.03	0.23	14.94	71.66	1115.57
27.54	0.20	16.03	87.21	2183.09
27.21	0.53	19.27	95.24	2390.57
27.06	1.45	10.56	77.55	1974.22
22.80	1.12	15.62	52.31	1301.93
22.43	1.62	20.15	110.83	2325.25
22.65	1.29	16.27	65.82	1714.42
22.40	0.60	16.29	57.22	1561.06
22.65	1.24	20.31	94.32	2649.19
22.02	0.60	17.53	95.15	2625.19
22.04	1.30	17.00	84.09	2200.17
21.04	0.41	15.90	53.64	1624.31
20.91	0.10	9.70	41.84	1013.19
20.25	0.50	9.07	30.23	935.02
21.50	1.23	15.05	75.93	2274.54
21.07	0.54	8.69	57.01	953.19
20.03	0.22	9.50	49.23	1311.90
22.01	0.49	7.37	31.19	757.41
22.57	0.40	8.05	41.19	925.01
22.54	1.20	5.52	29.15	529.07
24.25	0.93	17.92	97.10	2343.05
25.33	0.48	20.42	102.97	3705.61
24.25	1.50	17.92	97.10	3216.06
22.40	1.27	16.29	62.52	1725.19
20.75	0.60	11.60	55.39	1026.02
22.11	0.95	15.26	77.94	2212.01
24.43	0.43	7.44	24.87	476.22
22.51	0.18	3.53	10.00	124.25
15.45	0.14	2.10	9.19	57.22
22.71	1.05	12.66	50.97	1525.41
22.51	0.50	6.14	30.57	737.22
27.26	0.14	4.73	22.35	472.67
22.00	0.62	7.11	39.76	1072.67
25.00	0.69	12.22	54.30	1655.07
22.30	0.30	17.29	77.99	1912.29
12.45	0.04	14.10	72.92	846.55
22.02	0.59	5.29	23.83	469.02
22.25	1.02	15.37	73.04	2229.59
22.75	0.34	4.04	21.42	523.41
21.21	0.29	9.93	40.36	1021.95
20.68	0.22	9.23	36.63	901.02
22.74	0.45	13.33	55.13	1512.12
27.02	0.43	12.63	53.43	1333.09
21.05	1.55	15.80	63.81	1795.41
20.40	1.27	16.29	62.52	1722.19
22.05	0.92	13.66	45.35	1122.27
22.40	1.00	13.31	46.07	1224.21
1024.50				\$9700.23

CONCENTRATES

<u>Dry Tons</u>	<u>Oz. Gold</u>	<u>Copper</u>	<u>Per Tonn</u>	<u>Total</u>
1.08	1.70	\$53.90	\$105.51	\$107.02
1.58	2.60	42.40	137.76	209.89
1.50	1.73	38.70	105.85	147.69
1.43	1.33	30.00	101.10	141.70
1.53	1.60	51.05	95.04	111.04
1.35	2.53	41.40	123.75	137.25
1.39	1.60	33.25	115.39	255.70
1.63	1.53	38.70	99.06	175.15
1.29	1.20	35.55	106.09	120.57
1.55	1.14	33.90	109.90	120.00
1.33	1.10	30.90	105.51	137.92
1.33	1.31	42.50	115.36	200.85
1.31	2.60	42.40	137.76	\$100000.00
1916.10				

These are copies of Smelter settlement sheets. All figured on old price of gold and copper, estimates of Dumps, Fills and Potential ore are figured on basis of .00% copper and \$34.45 gold the price of these metals in 1934 at the time this report was refigured.

(Signed) C.M. Davis, M.E.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

SPECIAL

Mine CRITIC (3 claims).

Date January 10, 1940.

District Ellsworth, Yuma Co.

Engineer Elgin B. Holt.

Subject: SYNOPSIS REPORT

OWNER: Mrs. Rhoda Nolencheck & Co., Wenden, Arizona.
Nolencheck

LOCATION: Property located in the Cunningham Pass area, Yuma County, about 12 miles north of Wenden, with which place it is connected ~~with~~ by means of an excellent country road, kept in repair by Yuma County.

METALS: Gold, silver and copper, gold predominating.

HISTORY: The Critic mine has been operated continuously by Mrs. Nolencheck since about 1917. Mrs. Nolencheck generally employs two or three miners and works in the mine herself, or sorts ore, runs hoists, etc. All ore produced is at present shipped to the Hayden Smelter for treatment. At the present time, I was informed by Mr. H. C. Reedall, the average grade of shipping ore is around \$50.00 per ton, in gold, silver and copper. Mr. Reedall also estimated total production of the Critic mine since 1917 at \$500,000; also that this property has been the main producer of gold, silver and copper ore in the Ellsworth District for the past 20 years.

VEINS: Two veins from 1 to 7 feet wide traverse property, striking from N. W. to S. E.; dip 80 deg. N. E. These veins are 75 feet apart on surface; but on the 410 ft. level of the mine the said veins are only 35 feet apart. Deeper, they will no doubt come together and possibly form a large ore shoot.

DEV. WORK: Main shaft 400 feet deep, with 3 levels, 100 feet apart.

ORE: Engineers estimate 40,000 tons of ore on dumps and in mine fills, with an average assay value of \$8.00 per ton in gold, silver and copper. Also an equal amount of ore blocked out in mine, with a probable assay value of \$10.00 per ton in the said metals. Character of ore is chalcopyrite and chalcocite, so values can be recovered by flotation. Hence, total ore now available for milling would approximate 80,000 tons with a probable assay value gross of \$720,000.

WATER: Water sufficient to supply a 100 ton mill could be secured from wells located 3 miles from property in Butler Valley, per Mr. Reedall.

EQUIPMENT: Mine equipped with one 15 and one 25 H. P. hoist and a two-drill compressor; also a 30-ton old style flotation plant; two boarding houses, store rooms and 3 or 4 dwelling houses. Elevation about 2,000 feet above sea level. Also, the newly constructed Parker-Phoenix power line crosses property.

This mine warrants investigation by any company looking for a property of merit; but inasmuch as it has been worked by owners who have been extracting shipping ore for a number of years, considerable money would have to be spent in new development work in order to open up new and important ore reserves.

CRITIC MINE

September 12, 1969

The ore tonnage estimates and assay figures are taken from the copy of a 1934 report made by C. M. Davis, M. E. Since this report was made, there has been approximately 500 tons of ore shipped from the "C Level" and about 1,000 tons of dump run shipped from "Dump at Mine Shaft." The total amount is so nominal I will not make an allowance for it, and inasmuch also as there has been tonnage added to the dumps from the "C Level."

In compiling the tonnage figures Mr. Davis makes allowance only for the fines and direct smelting product. Quoting Mr. Davis, "There is only one way the dumps can be handled as the values are practically all in the fines. I find that on an average 50% will go fines, with 3% of the gross tonnage making a direct smelting product. This ratio applies to the filled stopes also. The following statements, estimates, are based on the fines and sorted ores available."

	<u>Tons</u>	<u>% Copper</u>	<u>Gold Oz.</u>	<u>Total Copper Lbs.</u>	<u>Total Gold Oz.</u>
Dump at Mine Shaft	4,666	2.03	.10	189,439	46.66
	280	11.6	.692	64,960	193.76
Ore House Dump	3,000	2.6	.541	156,000	1,623.00
Whim Dump	1,427	1.5	.08	42,810	114.16
	75	11.6	.692	17,400	51.90
Tunnel Dump	270	2.4	.15	12,960	40.50
	15	11.6	.692	3,480	10.38

Total lbs. copper 487,049.6 x .48 = \$233,783.80
Total oz. gold 473.59 x 41.00 = 19,417.19
\$253,200.99

Filled Stopes C Level	798	1.0	.30	15,960	239.40
	47	11.6	.629	10,904	29.56
300 to 400 Foot Level	625	2.4	.10	30,000	66.50
East	37	11.66	.629	8,628	23.27
West	3,780	2.4	.10	181,440	378
	226	11.6	.692	52,432	156.39
Fault to 300 Foot	450	2.6	.15	23,400	67.50
Level	27	11.6	.692	6,264	18.68

Total lbs. copper 329,028 x .48 = \$157,933.44
Total oz. gold 605.08 x 41.00 = 25,047.68
\$182,981.12

<u>Potential Ores</u>	<u>Tons</u>	<u>% Copper</u>	<u>Gold Oz.</u>	<u>Total Copper Lbs.</u>	<u>Total Gold Oz.</u>
C Level East of Fills and in Backs	2,666	2.0	.40	106,640	1,066.40
C and D Levels including block to surface	5,250	6.0	.25	630,000	1,312.50
300 and 150 Foot Level	18,266	5.0	.15	1,826,600	2,739.90
400 to 300 Foot Level	16,333	5.0	.15	1,633,300	2,449.95

Total lbs. copper 4,196,540 x .48 = \$2,014,339.20

Total oz. gold 7,568.75 x 41.00 = 310,318.75

Total \$2,324,657.95

Total Value of Ores:

Dumps \$ 253,200.99

Fills 182,981.12

Potential Blocked Ores 2,324,657.95

Total \$2,760,840.06

DEPARTMENT OF MINERAL RESOURCES
State of Arizona

SPECIAL

FIELD ENGINEERS REPORT

Mine CRITIC (3 claims).

Date January 10, 1940

District Ellsworth, Yuma Co.

Engineer Elgin B. Holt

Subject: SYNOPSIS REPORT

OWNER: ^{-dec'd} Mrs. Rhoda Nolencheck & Co., Wenden, Arizona.

LOCATION: Property located in the Cunningham Pass area, Yuma County, about 12 miles north of Wenden, with which place it is connected by means of an excellent country road, kept in repair by Yuma County.

METALS: Gold, silver and copper, gold predominating.

HISTORY: The Critic mine has been operated continuously by Mrs. Nolencheck since about 1917. Mrs. Nolencheck generally employs two or three miners and works in the mine herself, or sorts ore, runs hoists, etc. All ore produced is at present shipped to the Hayden Smelter for treatment. At the present time, I was informed by Mr. H. C. Reedall, the average grade of shipping ore is around \$50.00 per ton, in gold, silver and copper. Mr. Reedall also estimated total production of the Critic mine since 1917 at \$500,000; also that this property has been the main producer of gold, silver and copper ore in the Ellsworth District for the past twenty years.

VEINS: Two veins from 1 to 7 feet wide traverse property, striking from N.W. to S.E.; dip 80 deg. N.E. These veins are 75 feet apart on surface; but on the 410 ft. level of the mine the said veins are only 35 ft. apart. Deeper, they will no doubt come together and possibly form a large ore shoot.

DEV. WORK: Main shaft 400 feet deep, with 3 levels, 100 feet apart.

ORE: Engineers estimate 40,000 tons of ore on dumps and in mine fills, with an average assay value of \$8.00 per ton in gold, silver and copper. Also an equal amount of ore blocked out in mine, with a probable assay value of \$10.00 per ton in the said metals. Character of ore is chalcopryrite and chalcocite, so values can be recovered by flotation. Hence, total ore now available for milling would approximate 80,000 tons with a probable assay value gross of \$720,000.

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VEINS: Two veins from 1 to 7 feet wide traverse property, striking from N. W. to S. E.; dip 30 deg. N. E. These veins are 75 feet apart on surface; but on the 410 ft. level of the mine the said veins are only 35 feet apart. Deeper, they will no doubt come together and possibly form a large ore shoot.

DEV. WORK: Main shaft 400 feet deep, with 3 levels, 100 feet apart.

ORE: Engineers estimate 40,000 tons of ore on dumps and in mine fills, with an average assay value of \$8.00 per ton in gold, silver and copper. Also an equal amount of ore blocked out in mine, with a probable assay value of \$10.00 per ton in the said metals. Character of ore is chalcopryite and chalcocite, so values can be recovered by flotation. Hence, total ore now available for milling would approximate 80,000 tons with a probable assay value gross of \$720,000.

WATER: Water sufficient to supply a 100 ton mill could be secured from wells located 3 miles from property in Butler Valley, per Mr. Reedall.

EQUIPMENT: Mine equipped with one 15 and one 25 H. P. hoist and a twp-drill compressor; also a 30-ton old style flotation plant; two boarding houses, store rooms and 3 or 4 dwelling houses. Elevation about 2,000 feet above sea level. Also, the newly constructed Parker-Phoenix power line crosses property.

This mine warrants investigation by any company looking for a property of merit; but inasmuch as it has been worked by owners who have been extracting shipping ore for a number of years, considerable money would have to be spent in new development work in order to open up new and important ore reserves.

CRITIC MINE

LOCATION AND PROPERTY

The property is located about eleven (11) miles in a northerly direction from the town of Wenden, Arizona on the Santa Fe Railroad. The town of Wenden lies at an elevation of about 1800 feet and from there to the mine there is a gradual rise until you reach an elevation of 2500 feet.

A paved two lane highway, electric and gas lines pass within $1\frac{1}{2}$ miles of the property.

EXCERPTS FROM 1927 CRITIC MINE REPORT SUBMITTED BY GEO. S. HAPKINS, ME.

DEVELOPMENT:

Work has been done on all claims of the property but the main development has been confined to the Critic vein. This vein was worked originally from the discovery shaft and Boone tunnel which is east about 500 feet from the present vertical shaft and consists of about 2000 feet or more of drifting and considerable stoping on two levels, all the stopes being filled with the low grade ore out of which only the high grade has been taken and shipped leaving a good milling ore which will run from \$3.00 to \$5.00 gold and about 3% copper. All of the mine displays much high grade gold, there being much quartz exposed at the top of the stopes, assaying as high as \$72.00 gold per ton. This was missed by the original workers as it disclosed no copper signs. All the workings in this part of the mine show good milling ore and considerable high grade. The later vertical shaft is 400 feet deep and at that level is about 65 feet from the vein, there are cross cuts on the 150-300 and 400 ft. levels, and drifts on these levels for a distance of about 600 feet. Some stoping has been done, the main production of the mine having come from the high grade of these workings, shipments of which average from 1 to 3 ounces gold and from 10 to 22% copper. The fill in these stopes now assays \$4.00 gold and 3% copper, and is an abundance for a good sized mill.

ORE DEPOSIT:

The Critic deposit occupies a true fissure vein cutting directly across the country and can be traced on the surface for approximately 2 miles. The width of the vein varies from one to ten feet in width, it changing abruptly from its narrowest width to several feet, this is undoubtedly due to post-mineral faulting which is greatly in evidence on the property. The strike of the vein is $n.23^{\circ}28' W.$ and the dip is fairly steep. The gangue is principally brecciated country rock and soft red Hemitite, Quartz, Pyrite, and much grey and black schist and calcite. The chief ore minerals are chalcopryite, chrysocolla, chalcocite, malachite and cuprite with some native copper. The ore in the lower levels contains more quartz, the Silica throughout in the ore averages from 40 to 50%. Considerable ore is blocked out, one block being 500 feet long 75 feet high and 6 or more feet wide. The winzes are sunk below the 400 foot level to a depth of 45 and 85 feet, this being the deepest working in the mine, the entire width of the winze 45 feet below the 400 assays 4.7% copper and \$5.50 gold, there being no walls so width of the vein is unknown at this point.

CONCLUSION:

The critic vein being by far the most prominent vein, and being the strongest fissure vein in the country, being absolutely true and cutting directly throughout the schistosity of the country, together with the large amount of low grade ore in the fills and in the dumps, good tonnage of ore blocked out above the 400 level, makes this property appeal to me as well worth further development and the erection of a good sized mill which in my opinion could be paid for and a fair amount of profit out of the low grade ore in the fills and from the two large dumps, these two dumps alone containing in the neighborhood of 30,000 tons of material, about \$4.00 gold and 3% copper. Mine being in good shape, good air, there being two entrances, and a good vertical shaft, places the property in position to be easily placed on a paying basis.

THE MINES HANDBOOK, 1925 EDITIONCritic Mine

Property: 13 claims in Cunningham Pass, Ellsworth District, Yuma County, developed to depth of 440'. Ore contains gold, silver and copper. Has been operated by Leasers during recent years who have made regular shipments assaying from \$15 to \$75 gold, 10 to 25% copper, with a few ounces of silver. Calverite, a telluride of gold reported from 400' level. Equipped with 15 h.p. hoist.

Production: Said to total about \$700,000. In 1920, 167 ton yielded *\$9,087 in silver and copper. Reported August 1923, that Joseph Nohlecek of Wenden had secured control and would build 50 ton flotation mill at mine. Heap leaching started Nov. 1923.

* Note: It is believed that the author probably erred in that it should have been \$9,087 in Gold and Copper.

WENDEN COPPER

The wenden or barkdoll shaft is a double compartment vertical shaft sunk to the depth of 1000 feet and lies 2600 feet north-west of the Critic vertical shaft. Drifts were run in four directions on the 700 foot levels.

W. A. Buchanan, Mine Superintendent, reported: On the 700 foot level they drifted south-east 80 feet, then north-east 220 feet, at this point they ran an up raise 100 feet through a vein 36 feet in width averaging .30 oz gold and 3% copper.

WENDEN COPPER MINING CO: THE MINED HANDBOOK, 1925 EDITION

Property: 11 claims, 220 acres in Harcuvar Mtns., Near Cunningham Pass, Ellsworth District, Yuma County, 12 miles NW of Wenden, developed by 200' shaft, with 250' drift on 200 level and total workings of 600'. A shoot 3' wide and opened for 120' has gold-copper sulphide ore in a fissure vein traceable 2,200' along surface. The ore as shipped runs .50 oz gold and 6 to 12% copper. Showings on 200' level reported so favorable that new hoist and compressor will be added and shaft sunk to 800' level as soon as possible (may 1924).

Shipments 1923 averaged about \$50 per ton.

Two distinct ore shoots had been opened up late 1923, the old one from which shipments were made in 1916, is a chimney like mass opened on 100' level.

SPECIAL

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Critic (3 claims) Date January 10, 1940

District Ellsworth, Yuma Co. Engineer - Elgin B. Holt

Subject: SYNOPSIS REPORT

OWNER: Mrs. Rhoda Nolencheck & Co., Wenden, Arizona

LOCATION: Property located in the Cunningham Pass area, Yuma County, about 12 miles north of Wenden, with which place it is connected by means of an excellent country road, kept in repair by Yuma County.

METALS: Gold, Silver and Copper, Gold predominating.

HISTORY: The Critic mine has been operated continuously by Mrs. Nolencheck since about 1917. Mrs. Nolencheck generally employs two or three miners and works in the mine herself, or sorts ore, runs hoists, etc. All ore produced is at present shipped to the Hayden Smelter for treatment. At the present time, I was informed by M. H. C. Reedall, the average grade of shipping ore is around \$50 per ton, in gold, silver and copper. Mr. Reedall also estimated total production of the Critic mine since 1917 at \$500,000; also that this property has been the main producer of gold, silver and copper ore in the Ellsworth District for the past 20 years.

VEINS: Two veins from 1 to 7 feet wide traverse property, striking from NW to SE; dip 80 deg. NE. These veins are 75 feet apart on surface; but on the 410 ft. level of the mine the said veins are only 35 ft. apart. Deeper, they will no doubt come together and possibly form a large ore shoot.

DEV. WORK: Main shaft 400 ft. deep, with 3 levels, 100 feet apart.

ORE: Engineers estimate 40,000 tons of ore on dumps and in mine fills, with an average assay value of \$8 per ton in gold, silver and copper. Also an equal amount of ore blocked out in mine, with a probable assay value of \$10 per ton in the said metals. Character of ore is chalcopryite and chalcocite, so values can be recovered by flotation. Hence, total ore now available for milling would approximate 80,000 tons with a probable assay value gross of \$720,000.

WATER: Water sufficient to supply a 100 ton mill could be secured from wells located 3 miles from property in Butler Valley, per Mr. Reedall.

EQUIPMENT: Mine equipped with one 15 and one 25 HP hoist and a two-drill compressor; also a 30-ton old style flotation plant; two boarding houses, store rooms and 3 or 4 dwelling houses. Elevation about 2,000 feet above sea level. Also, the newly constructed Parker-Phoenix power line crosses property. This mine warrants investigation by any company looking for a property of merit; but inasmuch as it has been worked by owners who have been extracting shipping ore for a number of years, considerable money would have to be

Copy of Smelter Returns:

Consolidated Arizona Smelting Company Final
Liquidation Joe Nohlechek Ore-February 1919

Lot No.	Dry Tons	% CU	Deduction	Copper	
				Lbs Paid For	Quotations
					Preliminary
80	29.651	16.27%	1.25%	8907	15.00¢
86	29.840	15.80%	1.25%	8683	15.00¢
95	29.6905	13.82%	1.25%	7464	14.00¢

Copy of Telegram received by Joe Nohlechek from Humboldt, Ariz.
September 16, 1918:

JOE NOHLECHEK
WENDEN, ARIZONA

CAR RECEIVED ELEVENTH ASSAYED ABOUT ONE OUNCE GOLD
TWENTY PERCENT COPPER.

CONS. ARIZ. S. CO.

Excerpts From a Report Found Among The Nohlechek Papers - Probably
Made by an Engineer

Work has been done on all claims of the property, but the main development has been confined to the Critic vein. This vein was worked originally from the discovery shaft and Boone Tunnel, which is east about 600 feet from the present vertical shaft and consists of about 2000 feet or more of drifting and considerable stoping on two levels, all the stopes being filled with the low grade out of which only the high grade had been taken and shipped leaving a good milling ore which will run 3% copper and from \$2.00 to \$4.00 gold. This part of the mine has a very high gold content there being much quartz exposed at the top of the stopes assaying as high as \$73.00 gold per ton. This was missed by the original workers as it discloses no copper signs. All the workings in this part of the mine show good milling ore and considerable high grade.

The later vertical shaft is 400 feet deep and at that level is about 65 feet from the vein, there are cross cuts on the 150-300 and 400 foot levels and drifts on these levels for a distance of about 600 feet, some stoping has been done, the main production of the mine having come from the high grade of these workings, shipments of which average from 10% to 28% copper and \$20 to \$60 gold. The fill in these stopes assays 3% copper and \$3.00 to 5.00 gold and in abundance for a good size mill.

The Critic ore deposit occupies a true fissure vein cutting directly across the country and can be traced on the surface for approximately 2 miles. The width of the vein varies from one to 10 feet in width, it changing abruptly from its narrowest width to several feet. This is undoubtedly due to post-mineral faulting which is greatly in evidence on the property. The strike of the vein is N. 23°28' E. and the dip is fairly steep, the gangue is principally brecciated country rock and soft red hematite, quartz, barite, and much grey and black schist, and

Excerpts From the 1929 Annual Report -
Wenden Copper Mining Co. :

"Ore zones of substantial tonnage in excess of the area to which our operations will immediately be directed have been established for future consideration and operation. Of concern to shareholders at this time is that in several locations in our mine there is a disclosed tonnage, the total of which will assure a two-year profitable run for a mill of a capacity of 125 tons a day. The ore areas of low grade in our property which are not fully developed have not been considered in making this statement."

"The directors have heretofore been given authority by the shareholders to arrange necessary finances to complete construction of the reduction plant. The total budget for same calls for \$50,000. It provides for crushing plant of 500 ton daily capacity and installation of flotation system of 125 tons daily capacity."

Wenden Copper Mining Company Stock was listed on the New York Exchange. When the "crash" occurred in 1929 this ended the Company's operation and the proposed reduction plant never developed.

Transportation and Power Facilities:

A paved highway from Wenden passes within one mile of property. It is approximately 11 miles to the Santa Fe Railroad at Wenden. Electric power lines cross the property and the El Paso Natural Gas line is about one mile from property.

Report by "Mine Handbook 1924"

Critic Mine

Address: George B. Leighton, 105 E. 53 St., New York, owner.

Mine Address: Wenden, Arizona

Property: 13 claims in Cunningham Pass, Ellsworth district, Yuma County, developed to depth of 440'. Ore contains gold, silver and copper. Has been operated by Leasers during recent years who have made regular shipments assaying from \$15 to \$75 gold, 10 to 25% copper, with a few ounces of silver. Calverite, a telluride of gold reported from 400' level. Equipped with 15 h. p. hoist.

Production: Said to total about \$700,000. In 1920, 167 ton yielded \$9,087 in silver and copper. Reported August 1923, that Joseph Nohlechek of Wenden had secured control and would build 50 ton flotation mill at mine. Heap leaching started Nov. 1923.

calcite. The chief ore minerals are chalcopyrite, crysocola, chalcocite, malachite, and cuprite with much native copper. The ore in the lower levels contains more quartz. The silica throughout the ore averages from 40 to 50%. Considerable ore is blocked out one block being 500 feet long, 75 feet high and 6 or more feet wide. Two winzes are sunk below the 400-foot level to a depth 44 and 80 feet, this being the deepest working in the mine. The entire width of the winze assays 3.7% copper and \$2.00 gold, there being no walls the width of the vein is unknown at this point.

In 1935 due to depressed copper prices, Mrs. Nohlechek decided to concentrate her mining efforts to the East side of property where the ores carried a lower content of copper but higher gold values.

Excerpts from a Report by P. M. Mosier, R.E.

"Of the records of shipments from the Critic, in the early days there are none. But about 2000 tons were shipped from the Boone shaft on the Critic property to the A. S. and R., and the average value of the ore compiled by Garrick is 12.3% Cu. - .74 oz. gold - 2.50 oz. silver. This is quite a remarkable showing as it was shipped from a block of ground above the 150 ft. level, and had lain exposed for years."

When copper prices improved during World War II a decision was made to go back to the "West side." A reconstruction Finance Corporation loan was obtained for the purpose of developing the ore body below the 400-foot level. Preliminary work had just begun when General Patton's Africa Corps established Camp Bouse and all persons within a defined area were required to move out.

The government released the property in 1946, but other than some dump shipments in 1947, there has been very little mining activity. Record of dump shipments in 1947 are as follows:

American Smelting and Refining Company
Hayden Plant

Smelter Lot	Gold	Copper
302	.105 oz.	1.025%
151	.125 oz.	2.30 %

Wenden Copper:

This property is situated about .5 mile northwest of the Critic claim, and about 300 ft. lower in elevation. According to the map available, it is a double compartment shaft sunk to the depth of 1000 feet. Drifts were run in four directions on the 700 and 1000-foot levels.

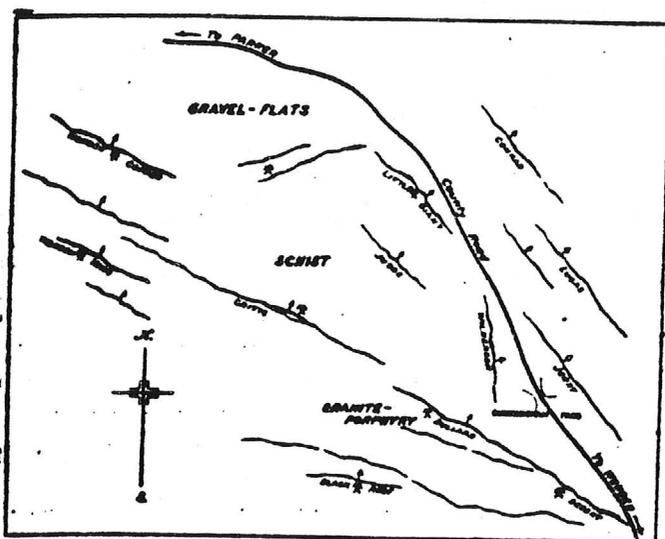
According to my father, who was the Mine Superintendent, a crosscut on the 700-foot level revealed a 36-foot vein averaging 3% copper and 6.00 per ton gold.

Cunningham Pass District, Arizona

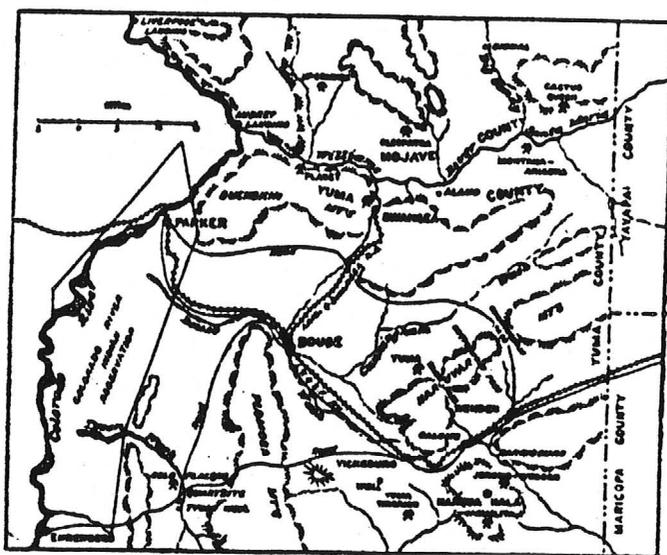
By W. TOVOTE

The Cunningham pass country, in northern Yuma county, Arizona, recently has been attracting considerable attention. This is less because of the amount of ore being mined than for the fact that the ore is high-grade and of excellent character for smelting. Three mines are now producing steadily, others are in process of development, and small shipments are being made by lessees from undeveloped properties. The district is about 10 miles north of Wenden on the Arizona & California

care to operate it, while prospective buyers were reluctant to meet his price and terms. The mine has been worked intermittently since by lessees. The Critic is a shaft-mine. It was opened to the 400-ft. level and partly stoped, some good orebodies being overlooked. Lessees have operated it since with indifferent success, until J. Nohlecheck, about two years ago, opened several good ore-shoots, increasing the reserves steadily, while making regular shipments.



SKETCH SHOWING PART OF VEIN-SYSTEM NEAR CUNNINGHAM PASS



SKETCH OF THE PARKER CUT-OFF DISTRICT IN YUMA COUNTY

branch of the Santa Fe system. It is part of the Ellsworth mining district.

Cunningham pass is a low saddle in the Harcuvar mountains. The main traveled road from points in central Arizona to Parker used to lead through this pass, but in recent years a new highway has been constructed along the railroad, which now takes most of the through-traffic. The country is a typical semi-desert. Water is scarce and wells supply most of the drinking water. Small towns and settlements have grown wherever water has been found in sufficient quantity. Vegetation is scanty, the mesquite and palo verde being the principal shrubs, and some ironwood is found along the arroyos.

Mining near Cunningham pass dates back at least 20 years. The Critic and the Bullard mines were started on rich surface-ores, and both produced for awhile. The Critic is credited with an output of \$500,000 and the Bullard with \$150,000. The Bullard was opened by four short tunnels, the longest being 320 ft., with a maximum depth of about 225 ft. vertically. Ore was also developed in two shafts. The ore-shoot in the tunnels was partly stoped and the mine closed because the owner did not

Two years ago H. Barkdoll, superintendent of the Old Dominion Copper Mining & Smelting Co., at Globe, and his associates, acquired the Wenden Copper mine, sank a shaft 200 ft. deep, shipped ore and then closed. Adjoining the Wenden are the Conrad claims, which were purchased by El Paso people who organized the Wenden King Mining Co. Considerable money was expended without much to show for the expenditure, and the enterprise came to grief. Activity lagged again, until recently a rather remarkable showing was made in the Little Giant mine. Here two lessees had stoped out a small surface-shoot of high-grade copper ore, ranging from 2 to 15 in. wide. At 35 ft. this gave out, but the new owners acquired a lease and option and continued sinking. At 75 ft. the vein suddenly widened to about two feet, and was followed for about 70 ft., yielding ore assaying from 15 to 20% copper. Sinking was resumed and the ore improved in value. A new level at 125 ft., driven for over 100 ft., revealed excellent ore, in some places being 40 in. wide. About 200 tons of ore was shipped from development work alone, which returned more than \$50 per ton net. This new development has

been widely advertised and a number of new companies and lessees are entering the district.

GEOLOGY. The Cunningham pass country is worn down to the old gneiss or schist basement of pre-Paleozoic age. The schist is apparently derived mostly, if not exclusively, from intrusive rocks. Acid and semi-acid rocks, like biotite-gneiss and granite, prevail. The schist strikes N.60°E. and dips 25 to 30° to the north-west. Contorted and folded areas interrupt the uniformity. Paleozoic strata do not appear within five miles of Cunningham pass. The schistose complex has been invaded by intrusives. Two of these are prominent in the mineralized area and have probably influenced the ore deposition. They are: A granitic intrusion of the quartz-monzonite type, sending out numerous pegmatitic and aplitic dikes; and a semi-basic to basic intrusive, ranging from coarse hornblende-diorite to dense porphyritic dikes, resembling diabase. The latter strike generally north-west, while the pegmatite dikes lie in all directions and are irregular in outline, forming a network of dikes, sills, and penetrations in the schist. Both systems of intrusives are cut by the veins and sometimes are distinctly displaced.

The most important veins strike about 60 to 70° north-west and dip to the north-east. Flat and steep dips alternate, varying from 30 to 90°. Even reversals of dip have been found at places. Cross-veins striking N. 30°W. are similar to the main-veins in character and mineralization. Others with a course from north to N. 10°W. seem to carry more gold and less copper. Bedded veins with a strike about N.60°E. are ore-bearing, but likely to prove irregular. The chief importance of all the smaller veins is their enriching influence upon the main veins at intersection-points. Enrichment occurs as well in strike-intersections as in dip-crossings.

Composite stringer-veins predominate, usually with one fissure that is likely to persist over considerable distances. From the evidence available the veins must have been re-opened several times, and the principal fissure appears frequently in several displaced sections, joined by a network of stringers, giving the impression that the main mineralization shifted from one branch of an intricate fracture-system to another abruptly. The displacing fractures had a course about N.30°E.

The mineralization indicates two distinct periods. The principal gangue of one period of mineralization is quartz, while the other period is characterized by iron, principally as hematite. Both are associated with copper and gold. The strong influence exerted upon the veins by the pegmatite dikes leads me to consider the pegmatite as responsible for the acid mineralization. The iron mineralization I attribute to the semi-basic intrusives. Seams and veinlets of hematite are frequent in the pegmatite dikes, from which it appears that the pegmatite antedates the basic mineralization in the veins, and that considerable replacement of quartz by hematite must have taken place. The hematite has been altered to limonite superficially, but not to any large extent. It occurs massive and in its micaceous variety. The latter is considered a more favorable sign of ore. It is probably

due to structural pressure and is coincident with areas of folding and contortion along the veins. These frequently have produced a false secondary schistosity, and often make the veins appear to conform to the schistosity, where they actually do not. Other gangue-minerals found are siderite, dolomite, and ankerite. Of these siderite is the most important and is closely associated with chalcopyrite. Possibly the hematite has been derived from siderite by metamorphism. Apparently post-mineral barite is common; less frequent is calcite, which is probably secondary. The metallization introduced chalcopyrite and pyrite with accessory gold. Silver is found, but seldom exceeds two ounces per ton, while the gold ranges from \$2 to over \$50 per ton. The copper has undergone considerable secondary concentration. Chalcocite, cuprite, and malachite are the principal products, while native copper, azurite, and chrysocolla are rarer. The ore generally assays higher than would be judged by its appearance, owing to a penetration of the hematite gangue by cuprite. Exceptional cuprite is found in perfect transparent crystals, accompanied by velvety malachite. The primary chalcopyrite is very pure and usually greatly in excess of the accompanying pyrite.

The orebodies are roughly lenticular, and vary from stringers to about four feet in width. A series of lenses, joined by narrow stringers, has produced a maximum stopping-length of 450 ft., and about the same proven depth in the Critic mine, the most extensively explored property in the district. The Bullard has an ore-zone about 150 ft. long. Favorable places for ore are folded areas, pegmatite-contacts, and the vicinity of basic intrusives. Intersection-zones increase the grade as well as the quantity of the ore.

The average grade of ore shipped from the district in the past was about 18 to 20% copper with about \$10 gold per ton. Chalcocite-stringers only a few inches wide are mined, and on being followed they will widen suddenly to several feet of solid ore and then contract again. While careful sorting is required where the vein is narrow, the ore breaks remarkably clean in the bigger shoots. The number of men employed is small. A mine employing 10 men and shipping 200 tons per month should make a good profit, as the net smelter returns are from \$50 to \$70 per ton. The haul to Wenden costs about \$4.50 per ton by team, but is now being done for less by trucks. The roads are fairly good and the grades not heavy. The Jerome scale of wages prevails, but labor is not very satisfactory, because many people dislike the hardships of the desert. The Bullard has shipped over 100 tons per month, working only two to three men, and the same ratio would be possible in most mines, if they were properly opened and employed power drills. The ore commands a ready market on account of its self-fluxing quality. The Clarkdale, Humboldt, Hayden, Saseo, and Douglas smelters have been receiving ore from the district. Cunningham pass is one of the few 'poor man's' copper districts in Arizona.

CREOSOTE has advanced to \$2.10 per pound. The demand is active.