

CONTACT INFORMATION

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PRINTED: 11/27/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: BILLIE "D"

ALTERNATE NAMES:

SANTA CRUZ COUNTY MILS NUMBER: 65

LOCATION: TOWNSHIP 23 S RANGE 15 E SECTION 11 QUARTER NW LATITUDE: N 31DEG 26MIN 57SEC LONGITUDE: W 110DEG 47MIN 15SEC

TOPO MAP NAME: NOGALES - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

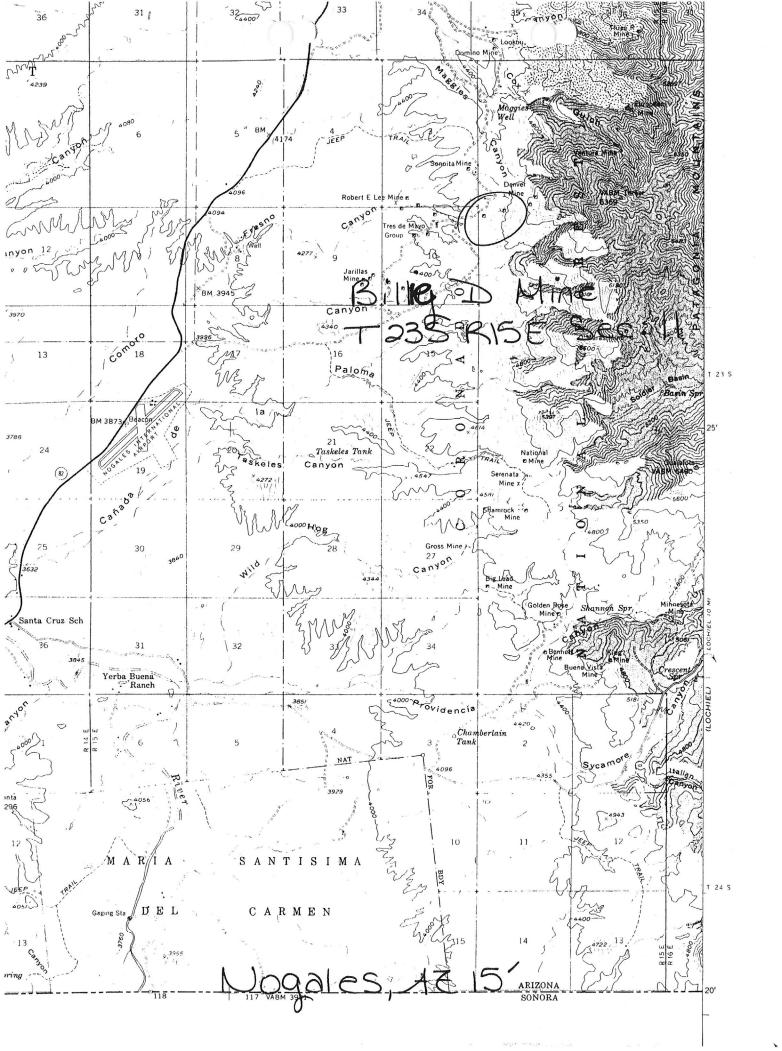
GOLD SILVER LEAD ZINC

BIBLIOGRAPHY:

USBM FIELD NOTES ADMMR BILLY D MINE FILE AZ. MINING JOURNAL, JUNE 30, 1940, P. 3-6

SANTA CRUZ COUNTY PALMETTO DIST. T23S R15E Sec. 11 NW

Santa Cruz County MILS Index #65
USBM Field Notes
AZ Mining Journal, June 30, 1940, p. 3-6
Nogales, AZ 15' Topo (included in file)



DEPT. MINERAL RESOURCES

AUG 20 1946

AND 20 1946

ARIZONA

DEPARTMENT OF MINERAL RESOURCES State of Arizona

MINE OWNER'S REPORT

Date August 15. 1946

1.	1. Mine: BILLY D MINE	
2.	2. Location: Sec	Vearest Town NOGALES
	Distance Direction Road Condition	•
3.	3. Mining District & County: Palmett Sant	
	4. Former Name of Mine:	0
5.	5. Owner:	
	Address / CAPIAIN MAX RITTERRATH	
6.	6. Operator: 391 S. Madison Ave.	
	Address: Pasadena 5,	şş.
7.	7. Principal Minerals: Silver Lew California	yre Zine
8.	8. Number of Claims: 14 Lode	
	Patented	
9.	0 4	
10.	10. Geology & Mineralization: Lee Feld Lui	jues,
1.	1. Dimension & Value or Ore Body:	my 10.1940
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. Water Supply: Brief History:	OK. Mine	for Nevelopment work.
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ARTMENT OF MINERAL RESOL LES STATE OF ARIZONA FIELD ENGINEERS REPORT

Ray Worley - V

Mine Billie D.

Date May 10, 1940.

I would - Rec Turing

District Palmetto, Santa Cruz County.

Engineer Miles M. Carpenter, E. M.

Subject: Special Report.

This report is based on a six hour examination of the property, in company with Ray Worley, a later brief visit in company with Director Coupal of this Department and study of the maps and sampling results of the R F C engineers.

The property examined has a vein outcropping on the west slope of a medium steep hillside, the west flanking ridge of the Palmetto section, Patagonia mountains. The hill is composed of porphyry rocks of several varieties, a drab-gray andesitic porphyry predominating. Two mottled gray, crystalline rocks were identified as diorite and quartz diorite. The type of rock is believed to have little or no bearing on the deposition of the ore.

VEIN-- The vein strike is close to N 30 deg E which is more easterly than the axis of the mountain which trends almost north. The outcrop was traced for about 1500 feet and could have been traced farther in both directions. The elevation rises about 300 from south where the outcrop is near the base of the hill to the north where the vein shows on the crest of a saddle. There is an offset in the vein caused by fault movement in an E-W direction, and the lower cross cut tunnel will be considered the dividing line between the south segment and the north segment. The strike of the vein is approximately the same in both segments but the dip which is to the east is steeper in the south segment being 70 degrees or more compared with 60 degrees in the north segment.

It is classed as a fissure vein with walls well marked; the vein matter being partly quartz filling and partly replacement material. In some places, the vein lies between different varieties of porphyry rocks and to that extent might be called a contact vein.

The vein appears to have a maximum width between walls of about 6 ft, but the quartz which carries most of the metals of value is seldom as wide as 3 ft, averaging probably 1.5 ft so far as exposed.

DEVELOPMENT- The vein is opened in the south segment by two shafts 30 ft and 90 ft in depth and by a crosscut tunnel 146 ft in length which enters the vein about 150 ft south of the 90 ft shaft. A drift north connects with the bottom of this shaft and continues for 100 ft beyond. In the north segment are two shafts, one 35 ft the other 70 ft in depth with about 40 ft of drift on the 35 ft level of the latter. A short adit tunnel gives another opening into the vein near the south end of the segment. All of the above described workingsswere made in previous operations. More recent development financed thru an R F C loan is a crosscut tunnel driven eastward about 600 ft to cut the vein near its center and a drift south in the vein 480 ft. There is a raise (No 5) to the upper drift 280 ft in from the crosscut and another connection with the workings above from the face of the lower drift. Six other raises spaced about 50 ft apart extend from 10 ft to 25 ft upward to expose ore.

Worley, Ray E.

Palmetto, Santa Gruz County

Pox 469

2544 N.Mitchell St. 3-2527 (4-6-44)

) -- Page 2 --) "ARTMENT OF MINERAL RESOL :ES STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Billie D.

Date May 10, 1940.

District Palmetto, Santa Cruz County.

Engineer Miles M. Cappenter, E. M.

Subject: Special Report.

VALUES. -- Data on sampling is not sufficiently complete to justify an attempt at close estimates, but the results of Gohring, Rockwood and Cummings shown on the sampling map are indicative. It is unfortunate that the sampling results of Gohring and Rockwood, R F C engineers, report only the gold and silver contents, for lead and zinc appear to be quite as valuable. The upper drift 57 ft above the lower drift is open for a length of 100 ft and this was sampled at regular intervals by Rockwood, and the results, balanced for widths, averaged:

Width 1.5 ft, Oz Gold .084, Oz Silver 7.87 Value- \$8.53 Composite Sample: Lead 10.0%, Zinc 8.2% 9.00 \$17.53

Note: The value of the lead and zinc content was taken at $2\frac{1}{2}\phi$ per pound to allow for metallurgical losses and marketing expense and this is believed to place the market value on parity with that shown for gold and silver.

Ore from No 4 raise, which is directly below the north end of this upper drift is reported as: Oz Gold .15, Oz Silver 5.7, % Lead 6.0% % Zinc 10.8 (%Copper .44 not considered) Value \$15.69 per ton.

Three samples taken by Rockwood in No 5 raise, apparently sections of the vein are recorded as follows: Width Oz Gold Oz Silver Value

(12" 0.24 20.6 \$23.62 27"(15" 0.04 11.7 9.70 \$15.88 24 0.02 1.4 1.69

These results are taken to indicate a workable width of 27 inches averaging \$15.88 in gold and silver.

A third record available for judging the value of the ore in this block is from five samples taken by Gohring in the 90 ft shaft which is the south limit of the block under consideration. No sampling width is shown so it is presumed that the samples were cut across the vein at intervals about 20 ft apart, vertically down the shaft. These samples show as an average: 0z Gold .088, 0z Silver 8172, Value \$9.25 per ton in gold and silver. The lead and zinc content is doubtless less than on the level below but will be appreciable.

As mentioned before no close estimate of values can be made, but results outlined above appear to justify the belief that the average will not fall below \$15.00 per ton for the block ore as it stands.

Only about 15 ft of the upper drift is accessible and that is on the south end as explained below.

Values at this point are indicated by samples taken by Gohring and Cummings and shipments by Standard Metals Co. and by Ray Worley and partners in 1917 and 1920 respectively. Results are tabulated below:

- Page 3 --

ARTMENT OF MINERAL RESOUR STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Billie D. Date May 10, 1940

District

Palmetto, Santa Cruz County.

Engineer Miles M. Carpenter, R. M.

Subject: Special Report.

 Source	Width or Amt.	Oz Gold	Oz Silver	%Lead	Value
Gohring	Not given	0.19	22.60	No assay	\$22.69
Cummings	10"	•08	25.76	No assay	20.09
Standard M	Co 27 tons	0.32	37.0	45	49.97
Ray Worley	13 "		86.0	54	98.06
Note: Gold	contained but th	e amount not	definitely	known.	

TOWNAGE. -- Neither can tonnage be calculated with any degree of certainty until more work is done in the vein. The upper drift is about 270 ft in length. The north 100 ft is estimated to average \$17.53 per ton, 120 ft in the center is caved, 20 ft next is timbered and 15 ft in the south end of the drift is caved leaving only 15 ft open where the upper crosscut tunnel enters the vein.

To present the situation clearly, the area opened by the lower (R F C) drift is divided into three blocks, Center, South and North. The Center block is contained in the 100 ft length of the north end of the upper drift figured 37 ft below and an average of 100 ft to the outcrop, with an average width of 1.5 ft. This block contains 20,550 cu ft, about 1700 tons. Values are indicated by nine samples in the roof of the drift, two samples in raises at the north end and the center approximately 37 ft below the floor of the drift and by five samples in the 90 ft shaft which is taken as the south boundary of this ore body. Assuming the correctness of sampling results this block is given the classification of probable ore.

The South Block is given a length of 200 ft, and an average depth of 115 ft. The width is conjectural. The north side of this block is the same as the south boundary of the Center block and sampling on the south end indicates values higher than occurred in the center block. Due to the fact that so little of this block is open for sampling, it can only be said that if the ore continues between the sampled faces in the same width assigned to Center block, then the volume will be about 34,500 cu ft and the tonnage 2875. tons, from which will have to be deducted any tonnage already mined in the inaccessible area.

The North Block has practically no sampled faces on which to base values. The length of this block is about 200 ft and the average height above the assumed base line of ore (20 ft above the lower drift) is also about 200 ft, so if the ore width of the center block is assumed for this block the volume will be 60,000 cu ft, or 5,000 tons. This is practically an undeveloped area, but due to its location is believed/to a classification as possible ore.

Besides the ore, more or less developed by the R F C crosscut tunnel and drift described, there is a shaft 30 ft deep on the vein about 250 ft south from the lower crosscut tunnel that shows evidence of mineralization. Sampling is incomplete, but two samples reported by Gohring showed the following:

	0.7	Width	Oz Gold	Oz Silver	Value \$4.75
G.	21-	Not shown	O.OT	6.2	\$4.75
G	22-	17 11	0.03	3.6	3.60

D ARTMENT OF MINERAL RESOULES

FIELD ENGINEERS REPORT

Mine Billie D.

Date May 10, 1940.

District

Palmetto, Santa Cruz County.

Engineer Miles M. Carpenter, E. M.

Subject:

Special Report.

These samples are below workable grade considering gold and silver alone, but it is quite possible that the lead and zinc content might make it workable. At any rate the values as good as the above gives encouragment that the ore in the south block may continue southward for some distance.

The north segment of Billie D vein has three openings described under the heading Development:

There were no sampling results shown for the short adit tunnel low on the hill. At the 35 ft shaft, which is about 225 ft from the line of the lower crosscut tunnel and at the 70 ft shaft which is 325 ft farther along the vein, samples were taken as shown by the following:

Gohring and two by Cummings, as follows:

At 35 ft Shaft	Gohring Cummings Cummings	Width (Not given 6" 30"	0z Gold .01 .24	0z Silver 13.0 15.52	Value \$ 9.48 19.42
At	Gohring	Not given	•04 •08	3 _• 38 11 _• 3	3.80 10.82
70 ft Shaft	Cummings Cummings Cummings	6" 9" 10"	•40 •09 •08	9.12 12.72 15.94	20.47 12.18 14.12

The assay results above tabulated indicate values fully as high as are found in the south segment of the vein, and conditions surrounding the vein/considered fully as favorable for the occurrance of ore.

PRACTICAL CONSIDERATIONS. This property appears to be stalled by under development. The showings of ore in the Center block is undoubtedly of width and grade to be worked profitably. Mining and milling costs of \$5.00 per ton on a small operation are or should be obtainable on this type of property. Adding the costs of development, marketing and overhead, approximately 50% of the \$15.00 gross value of ore as figured, should be operating profit.

This presumes, of course, equipment to give recoveries, efficiency and economy in line with the better plants in the industry.

Development would normally be started in the south segment and directed at extending the known tonnage in the Center block on both ends by raises and drifts. A complete treatment test of the ore should be made to determine the recoveries and the probable costs. This will be a guide as to what is the lower limit of ore.

The north segment of thes vein also; is believed to warrant development. The 35 foot shaft and the 70 foot shaft should both be cleaned out and carefully examined, the lower limits of the ore bodies determined by additional sinking or drilling so development can be done intelligently.

D. ARTMENT OF MINERAL RESOUL AS STATE OF ARIZONA FIELD ENGINEERS REPORT

Mine Billie D.

Date May 10, 1940.

District Palmetto, Santa Cruz County.

Engineer Miles M. Carpenter, E. M.

Subject: Special Report.

The lower crosscut should be utilized if practicable in the development of the north segment. In fact the only justification for this tunnel, as located, is to develop that part of the vein as it stands now- approximately 600 ft of new crosscut was driven to get 480 feet of drift on vein and practically all of this drift is below the known ore.

Further, the altitude of this outcrop drops to the south; 270 ft of backs at the crosscut dropping to 130 ft at the end of the 480 foot drift, to the north 550 ft under the 70 ft shaft, the back would be 370 ft.

Conditions at this property represent the problem of the so called "small mine". It must be admitted that there has been too small percentage of successes in this size of property. This is believed due to causes that are largely preventable by proper handling. A program based on knowledge of the property with operations planned accordingly has the same chance of making good on a small enterprise as on a large one. The difficulty is to get the proper engineering on the small property, so the operating program is built on fact and not on conjecture. A contributing cause is the unwillingness of small capital to pay for the necessary preliminary expense, as the larger operations do, and the demand for returns on their investment, entirely out of line with what would be acceptable in any other investment.

It is believed that further development of this property can be undertaken with expectation of working into a successful operation.

MINING
CATE ET
CARPENTER

31: 19
31: 19

Miles M. Carpenter, E. M.

GORDON F. CRONKHITE 180 EAST CALIFORNIA STREET PASADENA, CALIFORNIA

March 21, 1940

State Mineral Resource Board Phoenix, Arizona

Gentlemen:

I have been advised that there has been recently made a full report on the Billy-D Mine on the Patagonia Road, twelve miles northeast of Nogales, Arizona. I understand that this is now available to the public.

Will you be kind enough to mail to me, at the above address, a copy of this report and if there are any charges send the same collect. I would appreciate it very much if this could be done as soon as possible.

Very truly yours,

GFC R

Captain Max Ritterrath, 391 South Madison Avenue, Pasadena, California.

Dear Captain Ritterrath:

With further reference to my letter of April 24, I am enclosing herewith a copy of the report of Mr. Miles M. Carpenter on the Billy D Mine in Santa Cruz County.

Trusting that the information contained in this report may be helpful to you, I am

Yours very truly,

J. S. Coupal Director

JSC-jrf

encl.

2 copies of letters returned.

assumed to bes. on. church. 10-16-39 + 11-1-39.

Mr. Gordon F. Oronkhite, 180 East California Street, Pasadena, California.

Dear Mr. Cronkhite:

With further reference to my letter of March 22, I am enclosing herewith a copy of the report of Mr. Miles M. Carpenter on the BILLY D MINE in Santa Cruz County.

Trusting that the information contained in this report may be helpful to you. I am

Yours very truly,

J. S. Coupal Director

JSC-jrf

encl. .

Phoenix, Arizona, 6 May 1940

MEMORANDUM

TO:

Miles M. Carpenter, Tucson

PROM:

J. S. Coupal, Director, Phoenix

SUBJECT:

Billy D. Mine Report

I am just in receipt of another letter from Captain Max Ritterrath. The deal on the Billy D Min is evidently causing a hold-up on the possible financing.

I asked you some time ago to get this report to me.

Some four or five weeks ago you states that the Patagonia feature article was about in shape. It has not been received to date.

Also there have been no monthly news item reviews.

----000----

It would seem that with these very urgent items constantly being asked for that you might so arrange your work to get them off your hands.

I know you have field work next week, and I hope that by the end of this week you can have all of these matters definitely cleaned up and in this office.

PLEASE GIVE THE BILLY D REPORT FIRST AND IMMEDIATE ATTENTION.

J. S. Coupel, Director

Mr.Gordon F. Cronl

22 March 1940

Mr.Gordon F. Cronkhite, 180 East California Street, PasadenagCalifornia.

Dear Sir:

Replying to your letter of March 21, will say that we have had some note on the Billy D Mine from our field engineer in that district, but he has not submitted his report on the property. As soon as it is received, I will forward a copy to you.

I am writing our engineer to get this report completely as quickly as possible.

Yours very truly,

J. S. Coupel Director

JSC_jrf

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MEMORANDUM

TO:

Miles M. Carpenter, Box 841, Tucson

FROM:

J. S. Coupel, Director

SUBJECT:

BILLY D MINE

The delay in submitting a report on the Billy D. Mine is evidently holding up their plans for financing.

I am enclosing herewith a copy of a letter I have just written to Captain Max Ritterrath, 391 South Madison Ave., Pasadena, California.

I hope that you will get the Bill D. report out before trying to clean up any of the other office work you have on hand.

Please mail the report to me as quickly as possible.

J. S. Coupal, Director

24 April 1940

Captain Max Ritterrath, 391 South Madison Ave., Pasadena, California.

Dear Captain Ritterrath:

I was on the Billy D. property with Mr. Miles M. Carpenter last week, and he explained to me his difficulty in writing the proper sort of report on the property due to the difference of opinion expressed by the engineer who made a former report on the property, and also due to the fact that he desired to be of real assistance to Mr. Worley.

I have asked Mr. Carpenter to make a brief report setting forth his views irrespective of any other reports, and I am sending a copy of this letter to him. I hope to be able to get a report to you within a few days.

Yours very truly,

J. S. Coupel Director

JSC-jrf

CC-Carpenter

39, S. Madison the Pusulenn - Evlip. April 22.1940. State Mineral Presonse Attention Mr. Carpente. Grand. Phoenis Aviz. For M. Earyente: Will you Kindly send me a copy of your report on the Billy to. Mine (Nagales Arig) (Ray Worly Superistends) I belive that I am got my Americas at once on the strength of you recomendation. Lincarely yours Captain Max Protterrally

CAPTAIN MAX RITTERRATH

381 8. MADI**SON AVE.**PASADENA, CALIFORNIA

Few Mr. Enjal:

Thurkyen for your good letter of April 24. 40.

I have been writing with my answer mutic I had word from Mr. Carpenter, but se for I have not heard from him.

lonsiderable private capital is available here at this Aime and I can divert some up that Av Arizona.

Our læde men have løst Emplete confilence in some of our læde "gevlogists" and are quite impressed with the good work your board is string. As soon as I have things moving again at the Billy Fo. I will again make my permunet home in trizona and then vill be able Ar Iv a lot for our mines in the southern part of our State. All I had his gone noto the Billy of and we will make good. There are un outsiders interested or for and all almost the mine is clean. A 25/35 Ton mill will be the making of another your

mine in Hrizonn. It was good of you to write a letter Ar Mr Eugenter. With my thouth I am Ancedy Mux Phitherrath 391 S. Mudison Ave Parudenn - California May 6. 1940.

ref. JSC- g+t.

Captain Max Ritterrath, 391 S. Madison Ave., Pasadena, California.

Dear Sir:

I had an opportunity of seeing your correspondence with Mr. Carpenter regarding the Billy D Mine, and the remarks about the entineer who had reported on it.

Mr. Carpenter visited the property and made certain brief notes, but to date I have not received his formal report on the property. I am writing him urging that he get it to me as soon as possible, and I will then forward it to you.

Our object is to assist each and every individual property to get into operation, and, where the property warrants, have sufficient capital enter the state to develop it so you may count on our assistance.

I have just had a letter from Mr. Cronkhite, and I am advising him that report will be forwarded as soon as it is received.

Thanking you for calling this matter to my attention, and assuring you of my desire to be of service, I am

Yours very truly,

J. S. Coupal Director

JSC-jrf

391 S. MADISON AVE. PASADENA, CALIFORNIA

State Mineral Resource Board

3-21-40

Few sins:

Thoenis Arizona

your engineer Mr. Earpenter has visited my property, the Billy to. Mine Noyales Arizona and I muleston About a report is open for examination

at your affices.

We have had a hand time in formery this mine Ine Ar the city geologist Ahut have been send out ut various Aimes. One even went out and hid not Anke a sample - another "Mr. Harley Sills went out and sampled our X cut Annual (all in Gorphay and Livrite) and all other places on as to Keep his luboratory long for a while and the Arak the overage of all!

The \$ 100.000) had lined up at that time I blieve he skerested sto some hour in old Mexico and it was lost!

There should be some low pure that a mine owner or operator could get some vetres in a cure of that.

Now I have again the needed capital line up and I stock the liberty Av refer same Av your affices in regard so the Villy 7. Mine.

A Mr. Gorlin Groutkite vill sitte Ar you and if the Eugenters report aprives of the mine - then we cun go alend and get to work.

> Thanking you for all favors estended I am respectfully Caytum Min MACNAH

CAPTAIN MAX RITTERRATH

3-22-1940

RITTERRATH, Capt. Max
391 S. Madisc Ave., Pasadena, California

also

Gordon F. Cronkhite, 180 E. California St., Pasadenca, California

WANT information on Billy D Mine - want engineers report.

Report sent 5-15-1940.

Pasadena, Calif.

Nov. 1, 1939.

Mr. George M. Church Trinity Building Fort Worth, Texas

Dear George:

Your letter of October 19th was received just as I was leaving for San Francisco. Returned yesterday and now hasten a reply to correct an impression I must have unintentionally given I considered you had been discourteous. I'm sure the Captain didn't feel that way about it and I know I did not. All the criticism which was unloosed was directed at Sanford in his unprofessional capacity as an engineer on this aparticular job--nothing more.

In the language of hard rock mining, ore "blocked-out" has a wery definite status. As you know Sanford spent several hours in preliminary discussion with the Captain in Pasadena at which time every phase of operation to date on the property was gone into as well as the plan for the future. Therefore it was impossible for Sanford to have undertaken the examination trip under an impression he was to inspect and measure a supposed 10 thousand tons of ore blocked. What the Captain did say was that approximately 10 thousand tons of ore is now available or accessible for a mill. To see that requires the same sort of vision you have for oil down that hole you are drilling. By all the rules of the game you believe its a cinch-yet you can't actually see the oil until you "surface" it. Men like Worley and Ritterrath have worked that ground sufficiently so they "see" those 10 thousand tons just as surely as you "see" that oil. I personally saw literally hundreds of feet of high grade vein exposed in various parts of the workings. Some on three sides, more on two sides, and one heluva lot on one side. To imagine digging into that stuff and running out of ore before you could produce 160thousand tons is actually about 10 times more silly than to assume you are going to drill a "duster" in your off-set operation.

However from the viewpoint of a visiting engineer like Sanford, their so-called reputations are a stake, and a wrong guess is a "bug-a-boo" which haunts every move they make. Therefore their moves are mostly the safety-first negative, unless the handwriting onthe wall is in raised letters even the blind can read. Literally I know from my talks with you, George, you have time and again taken 10 times more risk at 10 times more cost for one hole in the ground than is involved in this operation.

The government figures Sanford obtained, which appear to have so adversely affected your interest in this property, could only be the ones taken off the assay map provided him by Worley. The only low figures were from assays of samples taken along the lower south drift. No doubt Sanford neglected to call your attention to the fact that an average of all samples taken 20 feet or more above the floor of said drift by the same government engineers considerably exceed \$20 total value. Contacting the vein withthe cross-cut tunnel and the drift south was all done on RFC money under government direction. The drift south had hardly started before the Captain and Worley both realized they were im a fold in the vein. They tried valiantly with no success in Washington to obtain permission to either raise up 20 feet or drop down. Had they been permitted to do so the entire 500 feet

length of the drift south would have been in good ore. This was one of the major blunders pulled by the government which even their own engineers acknowledged today. Raises all along this 500 foot drift, eight of them, consistently show the ore widening out soon as you get 15 to 20 feet above the floor, the high grade ore band in the vein averging 16 to 24 inches in width every where you look.

Point I wish to make is—Sanford knew all this before he left Pasadena so therefore granting the assertion you make in your letter—"iftthese figures had been shown you in Pasadena it would have saved you the expense of having the mine examined"—then I repeat, the implication in my letter of October 16th, — you were imposed on and didn't get a fair break on his services in the advance stage. As to his services after he got on the property I know neither you nor the property got a fair break. So much for that. I haven't written all this with any idea of trying to change your mind, My purpose is to clarify one or two points brought out in your letter about the mine. Mainly, however, I want to assure you, as I do again, that if I gave even the slightest impression I considered you personally had been discourteous, it was not so intended. Nothing could have been further from my mind when I was "sounding off" about Sanford in that letter.

Trust drilling operations are going forward smoothly for you-minus all mishaps. Best regards and looking forward to seeing you later on this winter full of health.

Sincerely yours,

Maury McLoughlin

Pasadena, Calif.
October 16, 1939.

Mr. George M. Church Trinity Building Fort Worth, Texas

Dear George:

During our very brief meeting in Nogales you may recall my remark I had not as yet personally visited the mine itself. Needless to say after you left I couldn't get back to the property fast enough to investigate whatever the reasons could be for an engineer to behave as Sanford had-for surely the reasons must be all too obvious, else how could such unprofessional, unethical prodeedure be justified?

So there can be no possible chance of misunderstanding let me state here and now I bear no resentment whatever because you saw fit to turn this deal down. That's your privilege of course—in fact I'm more than grateful to you for the time and interest you gave it. I appreciate the trouble youwent to in driving to Nogales, and the considerable expense you must have been put to. What I do resent is that as the result of a five minute private talk with your examining engineer you felt impelled to peremptorily call off all further negotiations on the strength of what he had to say. Yet he did not seem to feel the occasion demanded at least the common courtesy of a fewwwords of discussion or explanation. I am just old-fashioned enough to insist that it did. As I told you I have a mining engineer brother, and have developed thru him a certain "feel" for these things entirely apart from any technical training or knowledge. Therefore in the light of these rather "non-technical and non-professional" circumstances I feel qualified to go on record to some extent before calling the incident closed.

Sanford, nor any other engineer for that matter, is qualified to go on a property which has had years of careful engineering development put into it—not to mention tens of thousands of dollars—putter around on it a couple of days as he did, then "thumbs down" on behalf of his client without a word. Inferentially his discourteous attitude and manner of reporting the results of his examination lead only to one conclusion,—that the property is a complete wash—out, and in no way indicates any of the values represented. That he should permit the discussion to open and close in five minutes as it did in Nogales infers the deal "stinks" so badly it was best to get out of toen quickly to avoid the "small", and save his client from any chance of being "taken". All these inferences I resent. I feel I am just as much a friend of yours as Sanford, and I also feel you should know exactly what happened. I say without reserve if you paid the usual \$100 per day for such services, you were "taken" all right and not inferentially::

To get back. I returned to the mine and Ray Worley, who had accompanied Sanford, took me in tow. Ray is the engineer in charge from whom the Captain purchased the original claims. He is a Colorado School of Mines grad with years of practical experience to back it up. Step by step he and I retraced the ground. I found by questioning Ray that Sanford had taken no samples whatsoever as a professional man should. You or I could go in and do a better job. An unmethodical "peck" into the vein here and there—haver once a channel across a face. That silly bag of rock he took along with him as a superficial evidence of sampling a mine would make a pea-green frosh at mining school blush with shame. I actually climbed up in one raise where Ray had marked an exact outline of one of these instances of sample

taking after Sanford had turned away. He had struck into the vein with his pick-cloth spread below. Quite a large chunk of ore came away along with the usual gouge. Most of this latter fell on his cloth while a large chunk of gold ore and several smaller pieces rolled wide of the cloth. Our "boy friend" gathered the gouge in his precious cloth ignoring the ore which I found lying on the floor exactly as it had been left only a few hours before.

His failure to agree to the existence of a fault which sticks out like a sore thumb both below ground and on the surface, and a remark admitting lack of knowledge or practical experience with this type of conglomerate ore compared with the free-milling variety, all point to one thing for me--a surprising degree of incompetency for the job you gave him. Otherwise he deliberately laid down on said job and allowed you to provide him with a pleasant sojourn to southern Arizona with his fee as a nice banus! Incidentally with no expense whatever while there as he saw fit to impose on Ray's hospitality during his entire stay.

Since Sanford chose to be unprofessional in his examination, his opinion may be regarded accordingly. I therefore cannot resist taking this opportunity of offering my "unprofessional opinion" after going over the same ground he did with Ray. The only gem of wisdon Sanford was heard to contribute was that he could not see sufficient ore to justify a 25 ton mill. Naturally he couldn't as conditions now stand. Apparently he fails to take into account the plan of development--namely that during an estimated 90 days required to erect a mill, full crews would be at work under-ground getting ore ready for that mill. This to be accomplished thru a series of connected raises along the entire length of the exposed vein. Thus an added expense of almost 20 thousand dollars would be saved compared with preparing over by method of block-out. If Sanford came down to examine and measure ore blocked-out supposedly ready for mill, then you were imposed on for no such picture was given him before he left Pasadena. If after inspection he fails to see how sufficient ore could be produced by the method explained to him by Ray,then either he must be a little dull and lacking in what it takes to see into a picture of practical mining operation, or else he chose to play dead safe with you and his alleged reputation by resorting to well-worn formulae found in the text-book of standard engineering practice -- that what is not blocked on 3 or 4 sides, and so forth and so on, just isn't there.

In closing let me say this letter is the result of my own personal opinion and conclusions, and in no way reflects the thought of either Captain Ritterrath or Ray Worley. I repeat your acceptance or rejection has nothing whatever to do with it. It is what led up to and caused your rejection that arouses my ire. My sincere belief is you have been imposed on by careless, superficial engineering service. As a result a potentially valuable property is dismissed with a cursory mention which has previously had the approval of a number of outstanding engineers.

The best of luck in Texas -- but more important than the oil is your state of health which I trust will improve from now on.

Sincerely yours,

M. E. McLoughlin 800 So. Mentor Ave., Pasadena, Calif.