CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
416 W. Congress St., Suite 100
Tucson, Arizona 85701
520-770-3500
http://www.azgs.az.gov
inquiries@azgs.az.gov

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Reconstruction Finance Corporation Arizona Records

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DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Granted

Mine: BLAND. Ag., Cu., Pb., Zn. Date: June 17, 1943

District: Tyndall Engineer: Earl F. Hastings

Subject: Reconstruction Finance Corporation Mine Loan ✓ C

Docket No. Phx C-212 ND 5877
Date Application Received June 15, 1943
Date of Field Examination June 14, 1943
Date of Report June 17, 1943

1. Name and address of applicant (correspondent):
A. T. Russell, Box 192, Nogales, Arizona.

2. Character of project and estimated cost thereof:
Ag., Cu., Zn., Pb. Reopen, drain and timber upper and lower tunnel levels preparatory to mining operations. $3,875.00.

3. Location of property:
Tyndall Mining District, Santa Cruz County, Arizona.

4. Applicant's interest in or ownership of property:
Applicant holds 3 year lease from May 10, 1943 with 15 percent royalty on smelter returns and 10 percent on mill returns.

5. Loan requested:
$3,875.00.

6. Loan recommended:
$3,875.00.

7. Comments:
(A) Added to the docket are:

1. Report by George A. Ballam, Field Engineer, Department of Mineral Resources, dated June 14, 1943.
2. Memorandum by George A. Ballam of same date.

(B) The description of the deposition by the Scrader report and by the applicant, together with the supporting observations related in the Ballam report are indicative of early production possibilities. Samples by the applicant and visible exposures which could not be sampled for physical reasons, together with the appearance of the dump, tend to confirm the occurrence of mineable ore. From the limited recorded shipments and historical background it can be assumed that there has been no extensive stoping and that the major portion of the indicated ore zone is as yet in place.

While assay data and records are inadequate as a basis of metallic content to be anticipated, they are extremely favorable for an accessibility project. With such favorable indicative material the application should not be disallowed for lack of more specific data.

Shipments listed by the A.S. & R. show shipping preference to silver lead selected ore. The applicant's samples disclose a complex ore having appreciable components of ag., cu., pb. and zn.

(C) The property is favorably located in respect to marketing of mill grade ores.

(D) The applicant is thoroughly competent to judiciously reopen the property and operate it thereafter. Equipment is not listed but claimed to be adequate for a small producing mine.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

Earl F. Hastings, Projects Engineer

RECONSTRUCTION FINANCE CORPORATION

MINING DIVISION

PROGRESS REPORT OF SUPERVISING ENGINEER (Bland Mine)

Docket No: ND-5877
A. T. Russell
Date of Report: Sept. 19, 1944

On September 13, 1944, I visited this project in order to ascertain the progress being made. I found the applicant and two miners working. Mr. Russell informed me that the men were working on shares and expected to obtain their pay out of ore shipped. There was about 35 tons of good looking ore on the dump and they were stoping a three-foot vein along a length of 15 feet. Apparently since the loan funds are exhausted (Balance Aug. 11, 1944 was $44.30) and the miners have some say in the methods used to mine the ore, the applicant has stopped breaking waste and reduced the width of his stope from 6 feet to 3 feet which is the width of the ore. He has also stopped the heavy and unnecessary timbering methods he formerly employed and is using a stulled open stope method. The back of the stope was about 55' above the track level.

I believe the applicant will be able to continue shipping in a small way as there is undoubtedly a considerable tonnage of ore still in the mine altho it appears doubtful if he will ever be able to repay the loan in full.

Wm. B. Maitland
Supervising Engineer

1 x 3

Progress Report

A T. Russell
ND 5877

Sept 19, 1944

On Sept 13, 1944 I visited this project in order to ascertain the progress being made. I found the applicant and two miners working. Mr. Russell informed me that the men were working on shares and expected to obtain their pay out of ore shipped. There was about 35 tons of good looking ore on the dump and they were stoping a three foot vein along a length of 15 feet. Apparently since the loan funds are exhausted (Balance Aug 11, 1944 was $44,30) and the miners have some say in the methods used to mine the ore, the applicant has stopped breaking waste and reduced the width of his stope from 6 feet to 3 feet which is the width of the ore. He has also stopped the heavy and unnecessary timbering methods he formerly employed and is using a stulled open stope method. The back of the stope was about 55' above the track level

I believe the applicant will be able to continue shipping in a small way as there is undoubtedly a considerable tonnage of ore still in the mine altho it appears doubtful if he will even be able to repay a the loan in full.

Wm B Mathud
Emp Engr

RECONSTRUCTION FINANCE CORPORATION

MINING DIVISION

SUPERVISING ENGINEER'S REPORT FOR ADDITIONAL LOAN

Docket No. ND-5887
Name: A. T. Russell
Date of Report: July 19, 1944

At the request of the applicant, I again examined the above captioned mine on July 12, 1944. On June 30, 1943, a $3875 accessibility loan was granted this project and again on Dec. 10, 1943, a $7125 development loan was made to place the property on a shipping basis. The applicant has spent all of the $11,000 loan and now applies for an additional loan of $3675.00. With the new application is a statement by the applicant of the expenditures under the second loan.

Following is the record of shipments to date:

Date	Dry Tons	Oz. Gold	Oz. Silver	% Lead	% Copper	Net Smelter	"A" Prem.	Total Payment	Net per Ton
6/17/44	33.3195	0.097	8.4	2.7	4.06	146.07	165.87	311.94	9.36
7/12/44	29.512	0.075	8.0	3.3	3.72	104.23	144.01	248.24	8.41
Total	62.8315	0.086	8.2	3.0	3.89	250.30	309.88	560.18	8.92

Net proceeds from development loan - - - - $7044.74
Total from shipments (partly accrued)- - - 560.18

Total receipts -	$7604.92
Expenditures to date -	7273.45
Balance on hand -	$ 331.47

In my original examination I estimated that the mine contained 1500 tons of probable ore averaging 0.10 oz gold, 12.4 oz. silver, 3.62% lead, 4.67% copper across an average width of 28 inches as compared with the actual shipments of 0.086 oz. gold, 8.2 oz. silver, 3.0% lead and 3.89% copper. It is my opinion that the reason the applicant's shipments have run less than my assays is due to dilution of the ore in mining. The applicant is carrying a six foot wide stope on a 2½ foot vein; shoots ore and waste together and does not keep the stope fill close enough to the stope back to prevent the walls from caving. The ore and waste are then so badly mixed in passing thru the chutes that it is impossible to cleanly sort the ore on the dump before shipping. I have tried to help the applicant by instructing him in how to mine the ore but I am afraid he does not know enough about mining to comprehend.

Apparently none of the money has been misspent and the mine is now equipped with two 2-compartment raises, compressor, drilling equipment, ore sorting platform, water tanks, pipes, etc.

Of the originally planned expenditures the following has been completed:-

Type of Expenditure	Original Estimate	Amount Spent	
Repayment of Existing Loan	$3875.00	$3955.26	
Drifting east in upper tunnel (50')	850.00	1000.00	(approximately) (25')
Raising to Surface from upper tunnel (150 ft.)	3750.00	2073.41	(approx.) (37 ft. and 29')
Compressor rent $100/month	600.00	609.00	(purchase)
Purchase of stoper	350.00	265.00	
550' of 2" pipe	128.50	260.00	(1000')
550' of 1" pipe	60.50	160.00	(1000')
Steel, bits, explosives, tools	250.00	373.79	
Road repair 3/4 mile	500.00	1094.50	
Ore bin and sorting platform	500.00	455.00	
Incidentals	138.00	811.75	
Misc. equipment	- - -	171.00	
	$11,000.00	$12,168.78	

From the above analysis it is apparent that the applicant has spent more money than estimated on equipment, supplies and invidental expense and that the underground work has cost more than planned. It is my opinion that the applicant has spent too much time and money on timbering and has made the raises too large. In addition to the 37 feet of work in the main raise the other raise is now up 29 feet or a total of 66 feet. This work cost $2073.41 or a cost of $31.41 per foot.

The attached map shows the work done and the results of my last sampling in the slope. It will be noted that the latest sampling indicates that the grade of the ore is slightly decreasing and the short raise does not now contain mineable ore.

The applicant now requests an additional loan of $3675.00 with which he proposes to continue the raise to the surface a distance of 135 feet which he estimates will cost $25 per foot, or a total of $3375.00. It is possible that he can complete the raise for this money but his past costs have been considerably higher.

I cannot recommend an additional loan for this project for the following reasons:

1. Applicant has demonstrated that he is not an experienced low cost miner.

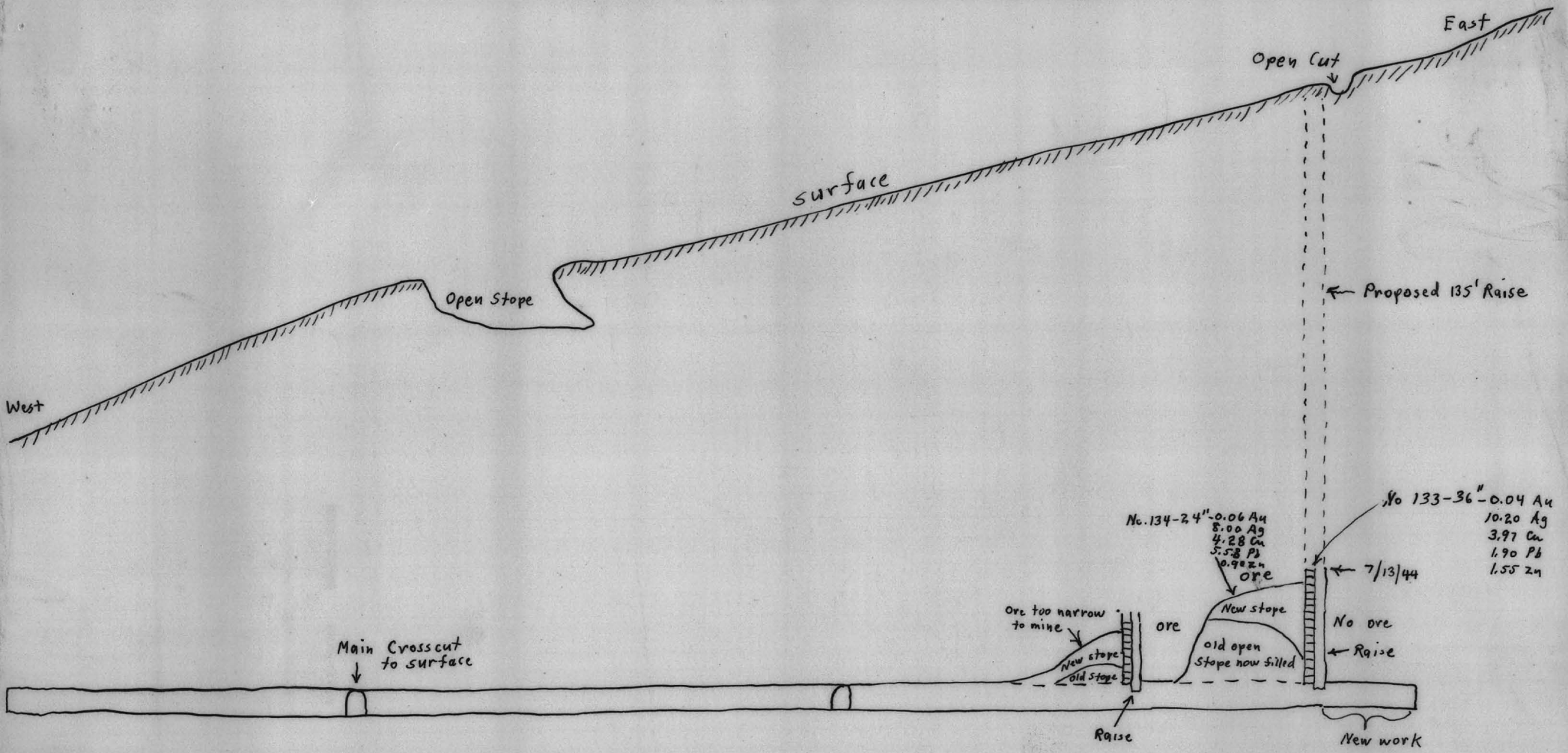
2. The ore exposed in the two raises is not as high grade as that originally sampled.

3. There is no assurance that if a further loan is granted the mine will become self-liquidating.

4. It looks doubtful whether the projected new work can be completed with the funds requested.

Unquestionably there is a considerable amount of ore remaining in this mine and it is probable that if a further loan is granted the applicant will ship a few more cars. It is also possible that the applicant may be able to personally finance the mining of the ore now exposed.

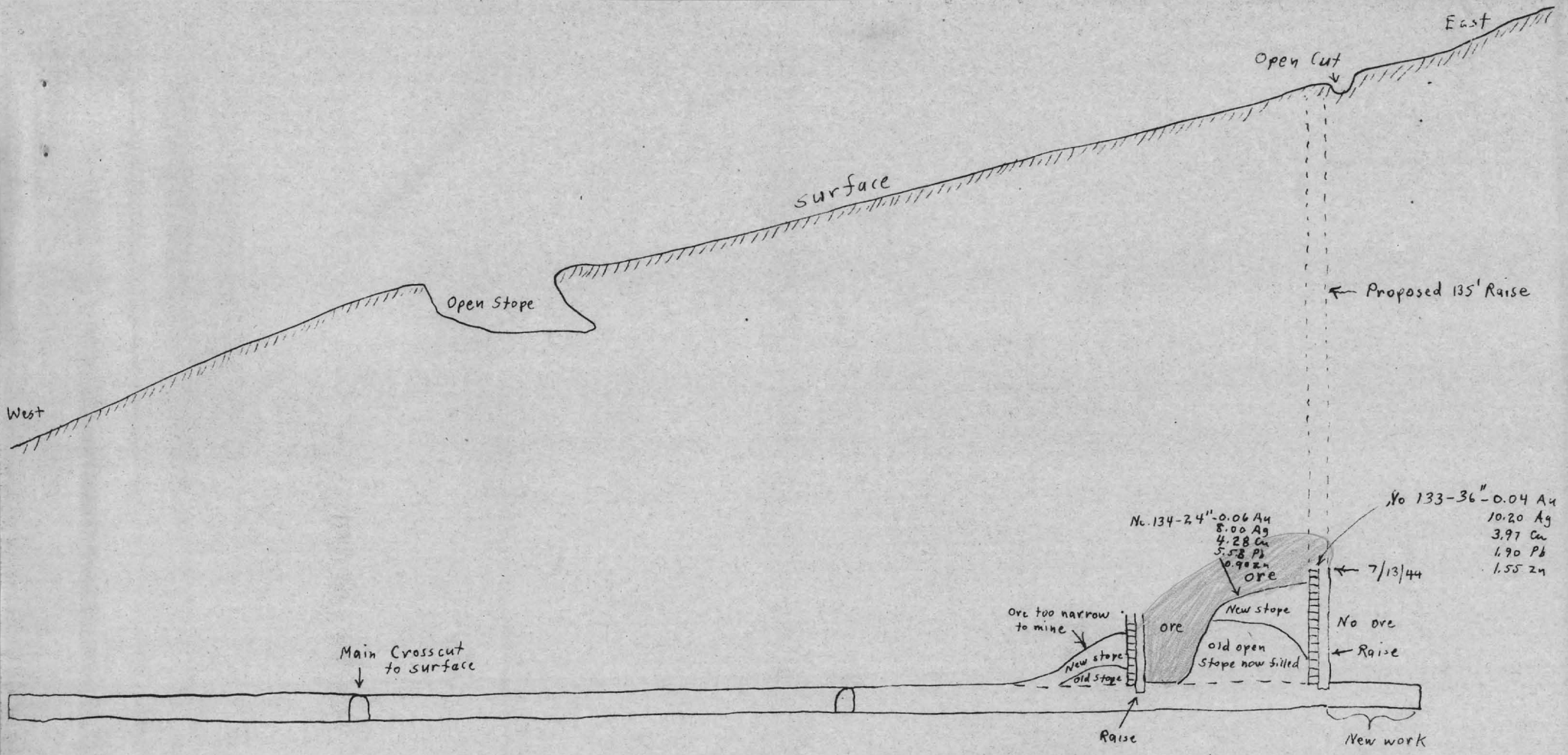
William B. Maitland
Supervising Engineer



A. T. Russell

ND 5877 July 13, 1944

Scale 1" = 40' Wm. B. Maitland



A. T. Russell

ND 5877 July 13, 1944

Scale 1" = 40' Wm. B. Maitland

CLAUDE E. McLEAN
P. O. BOX 1888

ARIZONA TESTING LABORATORIES

TELEPHONE 3-6272

ANALYTICAL AND CONSULTING CHEMISTS
ASSAYERS, MINING ENGINEERS
823 EAST VAN BUREN STREET

ASSAY CERTIFICATE

PHOENIX, ARIZONA, July 15 1944

Mr. W. B. Maitland, RFC

Phoenix, Arizona

WE HAVE ASSAYED THE SAMPLES RECEIVED FROM YOU AND FIND THE RESULTS AS FOLLOWS:

GOLD FIGURED AT $ 35.00 PER OUNCE.

LAB. FORM 2

SILVER FIGURED AT $ 0.70 PER OUNCE.

LAB. NO.	SAMPLE	GOLD		SILVER		PERCENTAGES		
		OZ. PER TON	VALUE	OZ. PER TON	VALUE	COPPER	LEAD	Zinc (Zn)
52575	A. T. Russell #133 36"	0.04	$1.40	10.20	$ 7.14	3.97%	1.90%	1.55%
52576	A. T. Russell #134 24"	0.06	2.10	8.00	5.60	4.28%	5.58%	0.90%

REGISTERED ASSAYER
CERTIFICATE EXPIRES
CLAUDE E. McLEAN
DEC. 31, 1944
ARIZONA, U.S.A.

RESPECTFULLY SUBMITTED,
ARIZONA TESTING LABORATORIES
BY Claude E. McLean
ASSAYER

CHARGES $ 8.00

47.39
57.25
104.64
41
104.23

67.97

Report for additional Loan

G. T. Russell
ND 5887
July 19, 1944

At the request of the applicant, I again examined the above captioned mine on July 12, 1944. On June 30, 1943 a $3875 assessibility loan was granted this project and again on Dec 10, 1943 a $7125 development loan was ~~granted~~ made to place the property on a shipping basis. The applicant has ~~now~~ spent all of the $11,000 loan and now applies for an additional loan of $3625.00. With the new application is a statement by the applicant of the expenditures under the second loan

(1) Following is the record of shipments to date:-

Date	Dry Tons	Oz Gold	Oz Silver	% lead	% Copper	Net Smelter	A Premium	Total Payment	Net per Ton
6/17/44	33.3195	0.097	8.4	2.7	4.06	146.07	165.87	311.94	9.36
7/12/44	29.512	0.075	8.0	3.3	3.72	104.23	144.01	248.24	8.41
Total	62.8315	0.086	8.2	3.0	3.89	$250.30	309.88	560.18	$8.92

Net proceeds from development loan $7044.74
Total from shipments (partly accrued) 560.18
Total receipts $7604.92
Expenditures to date 7273.45
Balance on hand $331.47

In my original examination I estimated that the mine contained 1500 tons of probable ore averaging

1,000.00
7044.74
3955.26

Type of Expenditure	Original Estimate	Amount Spent
Repayment of existing loan	$3875.00	$3955.26
Drifting east in Upper tunnel	50 ft $850.00	25 ft approx $1000.00
Raising to surface from upper tunnel	150 ft $3750.00	37 ft + 29 ft (Pandora) approx $2073.41
Compressor rent $100/month	$600.00	609.00
Purchase of stopes	350.00	265.00
550' of 2" pipe	126.50	260.00 (1000')
550' of 1" pipe	60.50	160.00 (1000')
Steel, bits, explosives, tools	250.00	373.79
Road repair 3/4 mile	500.00	1094.50
Ore bin + sorting platform	500.00	455.00
Incidentals	138.00	811.75
Misc. equipment	—	171.00
	$11,000.00	$12,168.75

37
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31.41
66) 2073.41
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From the above analysis it is apparent that the applicant has spent more money than estimated on equipment, supplies and incidental expense and that the underground work has cost more than planned. It is my opinion that the applicant has spent too much time and money on timbering and has made started too large a so the raises too large. The addition to the 37 feet of work ~~raising~~ ~~cap~~ in the main raise the other raise is now up 29 feet or a total of 66 feet. This work cost ~~approximately~~ $2073.41 or a cost of $31.41 per foot.

The attached map shows the work done and the results of my last sampling in the stope. It will be noted that the latest sampling indicates that the grade of the ore is slightly decreasing and the short raise does not now contain workable ore.

0.10 oz gold, 12.4 oz silver, 3.52 % lead 4.67% copper across an average width of 28 inches as compared with the actual shipments of 0.086 oz gold, 8.2 oz silver, 3.0 % ~~lead~~ lead and 3.89% copper. It is my opinion that the reason the applicants shipments have run less than my assays is due to dilution of the ore in mining. The applicant is carrying a ~~six~~ foot wide stope on a 2 ½ foot vein; shoots ore and waste together and does not keep the stope fill close enough to the stope back to prevent the walls from caving. The ore and waste are then so badly mixed in passing through the chutes that it is impossible to cleanly sort the ore on the dump before shipping. I have tried to to help the applicant by instructing him in how to mine the ore but I am afraid he does not know ~~enough~~ enough about mining to comprehend.

(2)

Apparently most of the money has been ~~wasted~~ misspent and the mine is now equipped with two - 2 compartment raises, compressor, drilling equipment, ore sorting platform, water tanks, pipes, etc.

Of the originally planned expenditures the following has been completed:-

The applicant now requests an additional loan of $3675.00 with which he proposes to continue the raise to the surface a distance of 135 feet which he estimates will cost $25 per foot or a total of $3375.00. Incidental expense is shown as $300.00 or a total of $3675.00. It is possible that he can complete the raise for this money but his costs could have been considerably higher.

I cannot recommend an additional loan for this project for the following reasons:-

1. Applicant has demonstrated that he is not an experienced low cost miner

2. The ore exposed in the two raises is not as high grade as that originally sampled

3. There is no assurance that if a further loan is granted the mine will become self liquidating

4. It looks doubtful whether the projected new work can be completed with the funds requested

Unquestionably there is a considerable amount of ore remaining in this mine and it is probable that if a further loan is granted the applicant will ship a few more cars. ~~but it is do~~ It is also possible that the applicant may be able to finance the mining of the ore now exposed but on the other hand if further ore is not produced from this project.

13
2.20
personally

W W B Mount

Blaud Paine

RECONSTRUCTION FINANCE CORPORATION

MINING DIVISION

PROGRESS REPORT OF SUPERVISING ENGINEER

Date of Examination: May 23, 1944
Date of Report: May 27, 1944
Docket No. ND-5877
A. T. Russell

On May 23, 1944, I also visited the above project and found that the Borrower had mined approximately 100 tons of good-looking ore; 70 tons of which is now piled on the dump ready for shipment to the El Paso smelter, and 30 tons still remains in the raises. Of the $7,440.74 loan granted this project, there remained on May 15th, a balance of $737.80.

Mr. Russell has already arranged for the shipment of the ore and the smelter will guarantee the railroad freight and hauling charges. The Borrower submitted as an average sample of the ore mined .1 oz gold; 10 oz. silver, 5% copper and 4% lead. The mine is now developed at two raises that are well timbered and there is apparently a considerable tonnage of ore remaining in the mine - probably in the neighborhood of 400 or 500 tons more.

The Borrower is apparently very sincere in his desire to operate the mine successfully, and informed me that he intends to continue employing only two men and will use the funds obtained from this opening shipment for the future operation of the project. The Borrower intends to ship the ore now mined within the next few days, and if he can maintain consistent shipments from the property, he should be able to repay the loan.

WILLIAM B. MAITLAND
Supervising Engineer

325 Heard Building
Phoenix, Arizona
May 6, 1944

Mr. A. T. Russell
P. O. Box 192
Nogales, Arizona

Re: A. T. Russell
Docket No. ND-5877

Dear A.T.:-

Received your letter of May 2 with the April 23 letter enclosed. I am sorry that it has not worked out for you to have Mr. Brunswicker working for you, but as I told you before, you are running the job and therefore, it is up to you to decide whom you should employ.

As you know, the only reason I suggested that you employ Mr. Brunswicker was to satisfy the Mine Inspector's Office and please be advised that this Office has the utmost confidence in your sincerity and good intentions. If Mr. Brunswicker's association with your project is detrimental to the future of the mine and the Mine Inspector will interpose no objections to the elimination of Mr. Brunswicker, it is quite satisfactory with us for you to dispense with his services. Go ahead and use your own judgment, as it is your job and your responsibility.

I am glad, indeed, to learn that you have struck some good ore and hope that you will soon be able to ship this ore as the funds available are rapidly becoming depleted. I also feel sure that you will be able to work this thing out satisfactorily and that you will be able to produce some profitable ore for the repayment of the loan.

I hope that within the next ten days I will be able to pay you a visit and at that time will discuss with you any problems that may arise. Let me know how things work out and rest assured that this Office will cooperate with you in any way possible in order to facilitate the success of your project.

With kindest personal regards to yourself and Mrs. Russell, I remain

Yours truly,

WM. B. MAITLAND
Supervising Engineer

WBM:mj

Phoenix, Arizona
325 Heard Building
April 10, 1944

Mr. H. J. Brunswicker
Box 892
Nogales, Arizona

Re: A. T. Russell
Docket No. 5877

Dear Butch:

Received your letter of April 7th in regard to the A. T. Russell job. I am sorry that you have not been able to get in touch with Mr. Russell, but I can understand that he feels rather hurt about the whole affair. I am depending upon you to be as diplomatic as possible with him and attempt to work out some arrangement with him whereby we will satisfy the Mine Inspector's office. As you know, our only interest in all of these loans is for the RFC to be repaid the money invested. Therefore I feel that any arrangement we can make to expedite the repayment of the loan is advisable. In any event, do the best you can; say as little as possible to Mr. Russell, and let's hope that this arrangement will work out to everyone's satisfaction.

I am sorry to hear that the Jefferson Mine is shut down, temporarily, but hope that Mr. Cheek will be able to refinance the operation. I expect by this time that the contractors have started on your raise and hope you have sufficient money to complete this work, as I doubt whether RFC, under the present marketing conditions, would feel justified in advancing any more money.

Sincerely yours,

William B. Maitland
Supervising Engineer

WBM/bkb

325 Heard Building
Phoenix, Arizona
April 10, 1944

RAIT, CHIEF MINING DIVISION - RFC - WASHINGTON, D. C.

-Re A. T. Russell: Docket No. 5877-

Attached to this letter is my Progress Report on the A. T. Russell project. On my last visit to the Nogales District, in which we have four mining loans, namely: Jefferson Mines, A. T. Russell, B & R Mines, and Long Contact Mining Company, I found that all of these project are more or less involved in controversies with the Deputy State Mine Inspector - Mr. Cliff Newens of Bisbee, Arizona.

It appears these difficulties arose from a more or less private and personal disagreement between a Mr. Nooner and the Deputy State Mine Inspector. Mr. Nooner has, at one time or the other in the past, been associated with practically all of these mines and operated them with a complete disregard for the wishes of the Mine Inspector's office, so that some year or more ago Mr. Newens demanded that all of these mines have a second exit completed before any stoping is done on the properties.

Attached to this letter, I am sending you a copy of the Mining Code of the State of Arizona, and on page 6, Section 2292 I have underlined in red that portion of the law which has a bearing on these projects. It is my interpretation of this law that stoping can be started but at the same time work must be commenced and diligently prosecuted on a second exit, and the law does not say that no stoping can be done until this second exit is completed.

I personally visited Mr. Newens in Bisbee and discussed this matter with him. I found him fairly reasonable and co-operative so far as the RFC is concerned, but he felt that he had made certain demands in the past of the various operators in the District and it would be difficult for him to back down now. His excuse for demanding the completion of the second exit before stoping commenced is based upon the fact that he felt he could enforce this ruling, although it is not covered by

the law, in cases where he felt that the operators of the project were not experienced and competent enough to safely mine the ore without a second exit. I pointed out to him that if he would enforce his arbitrary demands it would mean that the A. T. Russell and Jefferson mine projects would have to be closed with a complete loss to the RFC, as they did not have sufficient funds to complete the exit before stoping; but they did have sufficient funds, and the project was set up originally to drive the second exit while they were stoping, which was our interpretation of the law.

In order to stay upon amicable terms with the Deputy Mine Inspector and protect our interest in these properties, I negotiated a compromise with Mr. Newens whereby we would be allowed to operate and he would not have to reverse his decision already given in writing to the various projects. I learned that Mr. Newens was a personal friend and had a high regard for Mr. H. J. Brunswicker, who operated the B&R Mines and is now in charge of the Long Contact Mining Company. Mr. Newens felt that any operation under the direction of Mr. Brunswicker would be a safe one, and he felt that he could allow any operation under Mr. Brunswicker's direction to stope the ore while they were driving a second exit. Mr. Brunswicker has been authorized a salary of $300 a month to supervise the Long Contact operation as a full time proposition. Mr. Newens suggested that if Mr. Brunswicker would visit the A. T. Russell project once a week for a few hours and assist Mr. Russell in laying out a safe raising and stoping program, the State Mine Inspector's office would allow Mr. Russell to stope his ore while he was driving his second exit.

Mr. Brunswicker agreed that he would be glad to do this work for $50 a month, and I believe that this is the cheapest arrangement that we can make. However, such an arrangement would have to meet with your approval as Mr. Brunswicker is receiving $300 a month from Long Contact for his full time services. This is the best deal I could make with the State Mine Inspector, and if Mr. Russell would hire another man to operate his project, it would cost considerably more than fifty dollars a month as the Long Contact Mine is within a mile of the Russell job.

I also got Mr. Newens to agree that in the Long Contact raising operation, when we strike good ore in this raise, he will allow us to drive large finger raises off of the main raise thus producing and blocking out additional ore as we go up,

which would in turn help to finance the cost of this raise on the Long Contact project.

In addition, I also got Mr. Newens to agree that he would allow Jefferson Mines, Inc. to stope while they were raising if the Jefferson Mines would employ a competent mine superintendent. Mr. Cheek, who is not a miner, is now in charge of the Jefferson Mines and he has felt for some time (as has this office), that the chief difficulty in the past operation of this project has been the failure of the operators to obtain the services of a competent mine foreman; and Mr. Cheek is now attempting to locate such a man. If Mr. Cheek can obtain a good superintendent for his project, I believe that the Jefferson Mines will produce a large tonnage of lead ore and should be able to repay our loan of $5,000 on this project.

It is my personal opinion that if the arrangements as outlined in this letter can be consummated, our difficulties with these projects in regard to the State Mine Inspector's office will be solved. I therefore would like to recommend that if possible you would approve the payment of $50 a month to Mr. Brunswicker for his supervision of the A. T. Russell project.

Encs -

Arizona Mining Code

WM. B. MAITLAND

WBM/b

325 Heard Building
Phoenix, Arizona
April 10, 1944

RAIT, CHIEF MINING DIVISION - RFC - WASHINGTON, D. C.

-Re A. T. Russell: Docket No. 5877-

Attached to this letter is my Progress Report on the A. T. Russell project. On my last visit to the Nogales District, in which we have four mining loans, namely: Jefferson Mines, A. T. Russell, B & R Mines, and Long Contact Mining Company, I found that all of these projects are more or less involved in controversies with the Deputy State Mine Inspector - Mr. Cliff Newens of Bisbee, Arizona.

It appears these difficulties arose from a more or less private and personal disagreement between a Mr. Nooner and the Deputy State Mine Inspector. Mr. Nooner has, at one time or the other in the past, been associated with practically all of these mines and operated them with a complete disregard for the wishes of the Mine Inspector's office, so that some year or more ago Mr. Newens demanded that all of these mines have a second exit completed before any stoping is done on the properties.

Attached to this letter, I am sending you a copy of the Mining Code of the State of Arizona, and on page 6, Section 2292 I have underlined in red that portion of the law which has a bearing on these projects. It is my interpretation of this law that stoping can be started but at the same time work must be commenced and diligently prosecuted on a second exit, and the law does not say that no stoping can be done until this second exit is completed.

I personally visited Mr. Newens in Bisbee and discussed this matter with him. I found him fairly reasonable and co-operative so far as the RFC is concerned, but he felt that he had made certain demands in the past of the various operators in the District and it would be difficult for him to back down now. His excuse for demanding the completion of the second exit before stoping commenced is based upon the fact that he felt he could enforce this ruling, although it is not covered by

the law, in cases where he felt that the operators of the project were not experienced and competent enough to safely mine the ore without a second exit. I pointed out to him that if he would enforce his arbitrary demands it would mean that the A. T. Russell and Jefferson mine projects would have to be closed with a complete loss to the RFC, as they did not have sufficient funds to complete the exit before stoping; but they did have sufficient funds, and the project was set up originally to drive the second exit while they were stoping, which was our interpretation of the law.

In order to stay upon amicable terms with the Deputy Mine Inspector and protect our interest in these properties, I negotiated a compromise with Mr. Newens whereby we would be allowed to operate and he would not have to reverse his decision already given in writing to the various projects. I learned that Mr. Newens was a personal friend and had a high regard for Mr. H. J. Brunswicker, who operated the B&R Mines and is now in charge of the Long Contact Mining Company. Mr. Newens felt that any operation under the direction of Mr. Brunswicker would be a safe one, and he felt that he could allow any operation under Mr. Brunswicker's direction to stope the ore while they were driving a second exit. Mr. Brunswicker has been authorized a salary of $300 a month to supervise the Long Contact operation as a full time proposition. Mr. Newens suggested that if Mr. Brunswicker would visit the A. T. Russell project once a week for a few hours and assist Mr. Russell in laying out a safe raising and stoping program, the State Mine Inspector's office would allow Mr. Russell to stope his ore while he was driving his second exit.

Mr. Brunswicker agreed that he would be glad to do this work for $50 a month, and I believe that this is the cheapest arrangement that we can make. However, such an arrangement would have to meet with your approval as Mr. Brunswicker is receiving $300 a month from Long Contact for his full time services. This is the best deal I could make with the State Mine Inspector, and if Mr. Russell would hire another man to operate his project, it would cost considerably more than fifty dollars a month as the Long Contact Mine is within a mile of the Russell job.

I also got Mr. Newens to agree that in the Long Contact raising operation, when we strike good ore in this raise, he will allow us to drive large finger raises off of the main raise thus producing and blocking out additional ore as we go up,

which would in turn help to finance the cost of this raise on the Long Contact project.

In addition, I also got Mr. Newens to agree that he would allow Jefferson Mines, Inc. to stope while they were raising if the Jefferson Mines would employ a competent mine superintendent. Mr. Cheek, who is not a miner, is now in charge of the Jefferson Mines and he has felt for some time (as has this office), that the chief difficulty in the past operation of this project has been the failure of the operators to obtain the services of a competent mine foreman; and Mr. Cheek is now attempting to locate such a man. If Mr. Cheek can obtain a good superintendent for his project, I believe that the Jefferson Mines will produce a large tonnage of lead ore and should be able to repay our loan of $5,000 on this project.

It is my personal opinion that if the arrangements as outlined in this letter can be consummated, our difficulties with these projects in regard to the State Mine Inspector's office will be solved. I therefore would like to recommend that if possible you would approve the payment of $50 a month to Mr. Brunswicker for his supervision of the A. T. Russell project.

Encs -

Arizona Mining Code

WM. B. MAITLAND

WBM/b

RECONSTRUCTION FINANCE CORPORATION

MINING DIVISION

PROGRESS REPORT OF SUPERVISING ENGINEER

Docket No. ND-5877
A. T. Russell
Date of Report: April 10, 1944

On March 29, I visited the above project to inspect the progress being made.

The applicant has installed a compressor, pipe line, and small ore bin. He had advanced the east face of the upper drift 25 feet but the ore pinched out in the last three feet of drift so that the applicant has stopped all further work on the drift and is preparing to stope the ore and also to drive a raise on the ore to the surface.

At the time of my visit to the mine the applicant had piled on the dump about 35 tons of ore produced from his 22 feet of drifting. My grab sample of this ore assayed 0.03 oz. gold, 9.2 oz. silver, 4.92% copper, 4.80% lead and 2.30% zinc. He has only a zero quota with the A premiums on all metals altho no payment will be made for the zinc at the El Paso Smelter.

Of his last loan amounting to $7044.74 the applicant has spent $4615.25, leaving a balance on March 1, 1944, of $2479.49. Unless the applicant starts stopeing and shipping at once it is doubtful if he will have sufficient funds to complete the project. He has already timbered the drift back below the stope and all that remains is to timber the mouths of the two chutes necessary to extract the ore.

WILLIAM B. MAITLAND
Supervising Engineer

Progress Report

A. T. Russell
ND 5877
April 10, 1944

On April March ~~22~~ 29 I visited the about project to inspect the progress being made.

The applicant has installed a compressor pipe line, and small ore bin. He had advanced the east face of the upper drift 25 feet but the ore pinched out in the last three feet of drift so that the applicant has stopped all further work on the drift and is preparing to stope the ore and also to drive a raise on the ore to the surface.

At the time of my visit to the mine the applicant had piled on the dump about 35 tons of ore produced from his 22 feet of drifting. My grab sample of this ore assayed 0.03 oz gold, 9.2 oz silver, 4.92% Copper, 4.80% lead and 2.30% zinc. He has only a zero quota with the A premium on all metals. altho no payment will be made for the zinc at the El Paso Smelter.

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mouths of the two shutes necessary to
open & extract the ore.

Wm B Mumford

325 Heard Bldg.
Phoenix, Arizona
April 3, 1944

Mr. A. T. Russell
P. O. Box 192
Nogales, Arizona

Re: A. T. Russell
Docket No. ND-5877

Dear A. T.:

Upon my return to Phoenix, I found your letter awaiting me and the enclosed bills from the bank. These are duplicate bills so only pay one of them.

I am glad that the face of your main drift is again in ore, but I also agree with you that we do not have sufficient funds to do too much new development work. I talked with Mr. Cliff Newens at Bisbee, and I found him to be very cooperative and reasonable in all his ideas. I discussed at some length with him all of the various problems relating to your mine, and I hope that our conclusions will be agreeable to you and that you feel as I do that this will be a solution to your problems.

I would like to suggest to you that you employ Mr. H. J. Brunswicker of the Long Contact operation as a Consulting Engineer on your project. I have discussed this with Mr. Brunswicker and he feels that he can devote one day per week to your project at a cost to you of $50.00 per month, which to me seems reasonable. Under this agreement you would naturally have complete charge of the property as you do now, but he would merely supervise and advise you on your actual mechanical operations such as driving the necessary raise as a second exit and in the preparing the ore for stoping. I am sorry that I did not have a chance to discuss this with you personally, but I have discussed your problems with Mr. Brunswicker and he understands the method of approach which will be satisfactory to this corporation, and I believe to the State Mine Inspectors Office. Our method of operation will be to drive a raise to the surface in the number one stope at a point farthest from the portal of the tunnel and at the same time prepare the ore between this raise and the portal for stoping. As you of course realize, we have very little money left for the operation of the mine, and it will be necessary for you to be producing some ore while you are driving the necessary second exit. Of course it is not necessary for me to impress upon you

the necessity of continually carrying this second exit towards the surface to comply with the State Mining Law. I would like to have your comments on this and would be glad to discuss with you further any suggestions you might have. I am enclosing a small sketch map which will show the proposed method of operation. Under the plan I have outlined, Mr. Brunswicker will be responsible to you, to this corporation and to the State Mine Inspectors Office for the establishment of a safe method of raising and stoping the ore, and I believe that he, with the experience he has gained at the B & R and the Long Contact Mines will be of value to your operation.

I wish to thank you at this time for your hospitality at the time of my last visit, and hope your operation is highly successful. With kindest personal regards to you and Mrs. Russell I am,

Sincerely yours,

WM. B. MAITLAND
Supervising Engineer

WBM:MHW
Encs.
Sketch Map
Bill

cc: Mr. Brunswicker
cc: Mr. Newens

325 Heard Building
Phoenix, Arizona

November 22, 1943

TULLY, ASST CHIEF, MINE LOAN DIVISION, RFC, WASHINGTON, D.C.

-Docket No. ND-5877 - A. T. Russell -

Enclosed please find two copies of my report on the above entitled docket, together with one copy of the original application and supporting data.

WM. B. MAITLAND
Supervising Engineer

Encs.

2 copies Sup. Eng. Report
1 c application & supporting data

WBM-b

-Docket No. ND-5877 - A. T. Russell -

RECONSTRUCTION FINANCE CORPORATION
MINING DIVISION
REPORT OF SUPERVISING ENGINEER

Docket No. ND-5877
Date Authorization for Examination recd: Nov. 5, 1943
Date of Examination, Inclusive: Nov. 8-9, 1943
Date of Report: Nov. 19, 1943

In July, 1943, a loan of $3875 was granted this project (ND-3381) in order to make two tunnels accessible. The applicant cleaned out 752 feet of tunnel of which 132 feet required retimbering. Track was also laid in the part cleared out and about 1500 feet of road repaired and constructed. Unfortunately, the last part of the lower tunnel had again caved before I could make my examination, so was inaccessible, but since the applicant did not intend to work in this inaccessible portion, it does not materially affect my report on the property. Apparently the first loan was well and economically spent.

1. Name and addres of applicant:
   Name: A. T. Russell
   Address: Box 192
   City and State: Nogales , Ariz ona
   Correspondent: Same

2. Character of Project:

   To stope and ship to a smelter, gold, silver, copper, lead ore now exposed in an adit.

3. Location of Mine:
   Name of mine: Bland Mine
   T ownship, Range, S ection: Not surveyed, but part of S panish Grant - "Baca Float No. 3".
   Mining District, County, State:
   Tyndall Mining District, Santa Cruz Co., Arizona.
   Name and distance by road nearest railway station:
   Patagonia - a small town on the Southern Pacific R ailroad - is 18 miles southeast of the mine.
   Condition and seasonal accessibility of road, mine to railway:
   This is a good, graded dirt road that should be accessible at all times of the year except for the last half mile of road nearest the mine. It will be necessary to widen and improve this section of the road.

4. Applicant:

   Mr. A. T. Russell is about 60 years old and is apparently energetic and resourceful. He has done a good job in spending his first loan and appears to be a good practical miner. He is well and favorably known in this area. At the present time he is employing two good miners and Russell should be capable of operating this project.

5. Loan R equested:

The application calls for a new loan of $6,000, but makes no provision for repayment of the loan outstanding. After discussing the matter thoroughly with the applicant, we have agreed that it will take $ 11,000 to put the project on production, although of this amount, $ 3875 will be used to repay the present loan. Please note the letter attached to this report in which the applicant agrees to this amount.

6. Dscription of Project:

A. Legal considerations:

Applicant holds a 3 year lease on a mete and bound delineated area of ground 4500 feet long and 600 feet wide. Lease requires 120 shifts per month, prohibits underhand stoping and demands a royalty of 15% net on all ores shipped to a smelter and 10% net on all ores shipped to a mill. It is my belief that the smelter royalty should be reduced to 10%.

Applicant owns very little mining equipment and except for car, track and hand tools, no equipment was purchased with the first loan.

Before the applicant can stope the ore exposed above the east end of the upper tunnel, it will be necessary for him to raise thru to the surface a distance of about 150 feet. S ince this raise should be in ore and is necessary for the later stoping of the ore shoot it cannot be classed as "dead" work.

Existing Development:

The lower tunnel consists of 550 accessible feet of drifting on a vein located south of the Bland Vein and 60 feet of crosscuts to reach the B land Vein. Unfortunately, the old drifts and stopes on the Bland Vein are now caved and inaccessible so there is at the present time no ore showing in the lower tunnel.

The upper tunnel consists of 240 feet of crosscut and 360 feet of drifting on the Bland Vein and 140 feet of drifting on the parallel vein exposed in the lower tunnel. The only ore exposed is a 72 foot long shoot on the Bland Vein as exposed at the east end of the upper tunnel and a small narrow lense of ore exposed in the west drift along the Bland Vein. This west ore shoot is probably the same ore shoot that was stoped in the lower tunnel.

The vein outcrop has been stoped in a few places but no large amount of ore has been removed.

Attached to this report is an assay map of the workings.

Surface Improvements:

There are no surface improvements on the mine property. The applicant has completed about one-half mile of road from the existing road to the upper and lower tunnels.

General Geology:

Attached to the application is an excerpt from U.S.G.S. Bulletin No. 582, written by Frank C. Schrader. The veins on this property consist of strong fissure zones in diorite and the mineralization consists of gold and silver, and sulphides of copper, lead, and zinc.

Near the Bland Mine is located the Jefferson and B & R Mines, upon which loans have already been granted. There are no large profitable mines located in this area, altho a number of small properties have produced considerable high grade ore.

Economic Geology of Deposit:

The Bland Vein consists of a nearly vertical fissure zone from 2 to 6 feet wide, and in this crushed zone is located lenses of massive sulfide varying in width from two inches to 36 inches wide, with an average of 28". There is no blocked out ore in the mine altho in the east end of the upper tunnel there is exposed an ore shoot 72 feet long that has been partly stoped for a few feet above the tunnel level. The east face is still in good ore and it is the intention of the applicant to drive this drift ahead for 50 feet or as long as the ore continues.

The outcrop of the vein is very indistinct as the surface overburden is quite deep in most places. However, the outcrop has been exposed in a few places by open cuts and small surface stopes. The vein in these workings is badly oxidized and leached so it cannot be classed as ore. I do not believe that the oxidiz ed zone will extend more than 25 feet below the surface. I estimate that this east ore shoot should contain at least 1500 tons of ore assaying 0.10 oz gold, 12.4 oz silver, 4.67% copper, 3.62% lead, and 3.02% zinc which is the average of my assays.

Apparently there is a definite zonal arrangement of the various metals in the vein. The ore in the lower tunnel is heavy in lead and zinc while the ore exposed above the upper tunnel has greater amounts of copper.

Ore Res erves :

Average of Applicant's 10 samples in East Ore Shoot, upper tunnel:

26 1/2" wide, o.12 oz gold, 15.1 oz silver, 8.07% copper, 4.62% lead

Average of my 6 samples in East ore shoot, upper tunnel:
28" wide, 0.10 oz gold, 12.4 oz silver, 4.67% copper, 3.62% lead, 3.02% zinc

Using my assay average and shipping the ore to the Hayden smelter of the A S & R Co. we have:-

Smelter Payments:

Gold - 0.10 oz @ $32.31825/oz =	$ 3.23	
Silver - 12.4 oz x 95% x $0.69125/02 =	8.14	
Copper - 4.67% =93.4 lbs/ton - 8 lbs = 85.4 lbs x 95% x $ 0.0905/lb =	7.34	
Total smelter payment		$ 18.71

Premium Payment:

Copper - 4.67% = 93.4 lbs x 97% x $ 0.05/lb =	4.53
Total Payment for Ore	$ 23.24

Deductions:

Hauling, mine to railroad (Patagonia) 18 miles	$ 2.00
Freight, Patagonia to Hayden on S.P. R.R. ($15)	2.10
Taxes, hauling (.06), freight (.06), smelting (2)	0.14
Smelter charge $ 3.50 base charge , plus $0.37	3.87
Royalty 15% of net ($12.66) -	1.90
Total marketing charges	$10.01

Total net profit before deduction for mining costs	$ 13.23
Estimated mining cost per ton	6.00
Estimated net profit per ton	$ 7.23

E stimated probable ore (72' long x 28" wide x 120' high - 1500 tons

Estimated total net profit for repayment of $11,000 loan $10,845.00

Economic Considerations:

Applicant plans to raise from the east end of the upper tunnel to the surface and then stope out the ore. However, before raising he plans to drift ahead 50 feet to determine the lateral extent of the ore shoot. Drifting cost is estimated at $ 17 per foot and raising at $ 25 per foot.

Applicant plans to rent a nearby idle compressor for $ 100 per month. He intends to employ four men working one shift per day at the following rates:

1 superintendent (A. T. Russell) $200 per month
2 miners at $ 7 per day
2 shovelers @ $6 per day

Rate for drifting 3 feet per day
Rate for raising 2 feet per day

Time to complete raising and drifting - 4 months

Applicant intends to use cut and fill stope methods. The ore is hard and breaks large while the crushed fault breccia surrounding the ore is very soft. Ore will be sorted in the stope and it is estimated that two tons of rock will be broken to produce one ton of shipping ore.

Proposed expenditures:

Repayment of existing accessibility loan	$ 3,875.00
Drifting east in upper tunnel 50' @ $17/ft	850.00
Raising to surface from upper tunnel (stope preparation) 150' @ $ 25/ft	3,750.00
Compressor rent (210 cu. ft. machine) $ 100/mo for 6 mo.	600.00
Purchase of stoper	350.00
Jackhammer -already owned by applicant	
Pipe 2" - 550' @ 23¢/ft	126.50
Pipe 1" - 550' @ 11¢/ft	60.50
Steel, bits, explosives, tools	250.00
Road repair 3/4 mile	500.00
Ore bin and sorting platform	500.00
Incidentals	138.00
Insurance deposit, already paid	- ---
Total for loan	$ 11,000.00

It is estimated that the development work as above outlined should produce about $1200 worth of ore.

Comments of Supervising Engineer:

Present indications are that this will not develop into a large mine as the ore shoots are not big nor exceptionally rich.

There is no blocked out ore in the mine altho there is sufficient probable ore now expos ed to repay the loan requested. Ore at greater depths than the upper tunnel should contain a large percentage of zinc so could not be profitably treated at a smelter but must be milled.

Unless a further loan is granted this project there is no chance of repayment of the first loan. If copper is still critically needed, this project should be able to produce a considerable amount; but there is little chance of any profit above loan repayment from the mining of the ore now exposed in the mine. I do not believe that deeper development is warranted until the applicant can demonstrate that he can mine the upper ores profitably.

Since there is reasonable promise that the loan will be repaid and copper is still needed it appears that a loan would be justified for this mine.

WM. B. MAITLAND
Supervising Engineer

No. 392 Ma

Phoenix, Arizona,
Nov.12,1943.

CHAS. A. DIEHL

ARIZONA ASSAY OFFICE

Phone 3-4001 — 815 North First Street — P. O. Box 1148

This Certifies That samples submitted for assay by Mr. Wm. B. Maitland. contain as follows per ton of 2000 lbs. Avoir.

A.T. RUSSELL MARKS No.	Width	SILVER Ounces	SILVER Tenths	VALUE (Oz.)	GOLD Ounces	GOLD Hundths	VALUE (Oz.)	TOTAL VALUE Of Gold and Silver	PERCENTAGE COPPER	PERCENTAGE LEAD	PERCENTAGE ZINC	REMARKS
68	36"	16.	9			.05	$1.75		3.85	2.40	2.35	
69	30"	10.	0			.02	$.70		2.33	3.65	2.75	
70	30"	10.	8			.06	$2.10		7.71	2.43	3.70	
71	24"	8.	3			.18	$6.30		8.05	3.44	1.81	
72	24"	4.	9			.03	$1.05		.70	4.22	4.00	
73	24"	22.	2			.32	$11.20		5.61	6.50	3.72	
74	24"	5.	7			.07	$2.45		.65	6.20	4.30	
75	Grab	28.	7			.14	$4.90		4.76	17.43	5.65	

Charges $ 36.00

Assayer ARIZONA ASSAY OFFICE

Report of Supervising Engineer

Docket No. ND 5877

Date authorization for Expan Rel.
Nov 5, 1943

Date of Expan clmd. Nov. 29, 1943

Date of Report Nov. , 1943

100
100
100
32
332
130
121
97
72
752

In July 1943 a loan of $3875 was granted this project (ND 8381) in order to make two tunnels accessible. The applicant cleaned out 752 feet of tunnel of which 132 feet required retimbering. Track was also laid in the part cleaned out and about 1500 feet of road repaired and constructed. Unfortunately the last part of the lower tunnel had again caved before I could make my examination so was inaccessible but since the applicant did not intend the work in this inaccessible portion it does not materially effect my report on the property. Apparently the first loan was well and economically spent.

1

1. Name and address of Applicant

Name - A. T. Russel

address - Box 192

City + State - Nogales, Arizona

Correspondent - Same.

2 Character of Project

To stope and ship to a smelter, gold, silver, copper, lead ore now exposed in an adit.

(3) ~~Location of~~ Location of Mine

Name of mine - Bland Mine

Township, range, section - Not surveyed but part of Spanish Grant "Baca Float No 3.

Mining District, County, State - Tyndall Mining District, Santa Cruz Co, Arizona

Shonsey

Name & distance by road nearest railway station - Patagonia a small town on the Southern Pacific Railroad is 18 miles south east of the mine

Condition and seasonal accessibility of road, mine to railway - This is a good graded dirt road that should be accessible at all times of the year except for the last half mile of road nearest the mine. It will be necessary to widen and improve this section of the road.

(2)

18.71
5.97
12.74
2.10
3.87
5.97

4. Applicant

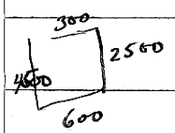
Mr A.T. Russell is about 60 years old and ~~but~~ is apparently ~~a good shrewd prospector~~ energetic and resourceful. He has done a good job in spending his first loan and appears to be a good practical miner. He is well and favorably known in this area. at the present time he is employing 10 good miners and Russell should be capable of operating this project.

12.74
.16

5. Loan Requested

The application calls for a new loan of $6000 but makes no provision for repayment of the loan outstanding. After discussing the

matter thoroughly with the applicant we have agreed that it will take $11,000 to put the project on production of the amount, $3575 will be used to repay the present loan. Please note the letter attached to this report in which the applicant agrees to this amount.



6. Description of Project

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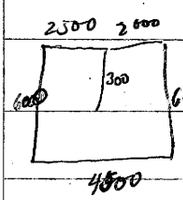
(3)



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Existing Development

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(4)

The vein outcrop has been stoped in a few places but no large amount of ore has been removed.

attached to this report is an assay map of the workings

Surface Improvements

There are no surface improvements on the same property. The applicant has completed about one half mile of road from the existing road to the upper & lower tunnels

General Geology

attached to the application is a report by an excerpt from U.S.G.S Bulletin No 502

written by Frank C. Schrader. The veins on this property consist of strong fracture zones in diorite and the mineralization consists of gold and silver, and sulfides of copper, lead, and zinc.

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(5)

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Ore Reserves.

~~Ore Assaying Data~~

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26.5" wide, 0.12 oz gold, 15.1 oz silver, 8.07% Copper, 4.62% lead.
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Copper - 4.67% = 93.4 lbs/ton - 8 lbs = 85.4 lbs x 95% x $0.0905/lb =	7.34
Total smelter payment.	$18.71

Premium Payment.

Copper. 4.67% = 93.4 lbs x 97% x $8.05/lb =	$1.53
Total Payment for Ore	$23.24

3.71

(7)

Deductions

Hauling Mine to Railroad (Patagonia) 18 miles =	$2.00
Freight - Patagonia to Hayden on SP.RR($15) =	2.10
Taxes - hauling, .06 frt, .02 smelting =	0.14
Smelter charge $3.50 base charge + $0.37 =	3.87
Royalty 15% of net ($12.66) =	1.90
Total marketing charges =	10.01
Total net profit before deduction for mining costs	$13.23
Estimated Mining cost per ton =	$6.00
Estimated Net profit per ton	$ 7.23
Estimated probable ore (72' long x 28" wide x 120' high) =	1500 tons
Estimated total net profit for repayment of $11,000 loan =	$10,845.00

2.3
165.6
19,872

Economic Considerations

applicant plans to raise from the east end of the upper tunnel to the surface and then stope out the ore. However before raising he plans to drift ahead 50 feet to determine the lateral extent of the ore shoot. Drifting cost is estimated at $17 per foot and raising at $25 per foot.

applicant plans to rent a nearby idle compressor for $100 per month. He intends to employ four men working one shift per day at the following rates:-

1 superintendent (A.T. Russell) $200 per month
2 miners @ $7 per day
2 shovellers @ $6 per day

~~It will~~

Rate for drifting 3 feet per day
Rate for raising 2 feet per day
Time to complete raising and drifting 4 months

(8)

applicant intends to use cut and fill stope methods. The ore is hard and breaks large readily the crushed fault breccia surrounding the ore is very soft. Ore will be sorted ~~out~~ in the stopes and it is estimated that two tons of rock will be broken to produce one ton of shipping ore.

~~Proposed~~

✓

Proposed Expenditures

Repayment of Crosting accessibility Loan	$875.00
Drifting east in upper tunnel 50'@ $17/ft	850.00
Raising to surface from upper tunnel (stope preparation) 150'@ $25/ft	3750.00
Compressor rent (210 cu ft machine) $100/mo for 6 mo	600.00
Purchase of stoper	350.00
Jackhammer already owned by applicant	—
Pipe 2" - 550' @ 23¢/ft	126.50
Pipe 1" - 550' @ 11¢/ft.	60.50
steel, bits, explosives, tools	250.00
Road repair 3/4 mile	500.00
Ore bin & sorting platform	500.00
Incidentals	138.00
Insurance deposit already paid	—
Total for Loan	$11,000.00

(9)

It is estimated that the development work as above outlined should produce about $1200 worth of ore.

Comments of Supervising Engineer

Present indications are that this will not develop into a large mine as the ore shoots are not big nor exceptionally rich.

There is no blocked out ore in the mine altho there is sufficient probable ore now exposed to repay the loan as requested. Ore at greater depths than the upper tunnel will should contain a large percentage of zinc so could not be profitably treated at a smelter but must be milled.

Unless a further loan is granted thru

project there is no chance of repayment of the first loan. Alf copper is still critically needed this project should be able to produce a considerable amount but there is little chance of any ~~large~~ profit above loan repayment from the mining of the ore now exposed in the mines. I do not believe that deeper development is warranted until the applicant can demonstrate that he can mine the upper ores profitably.

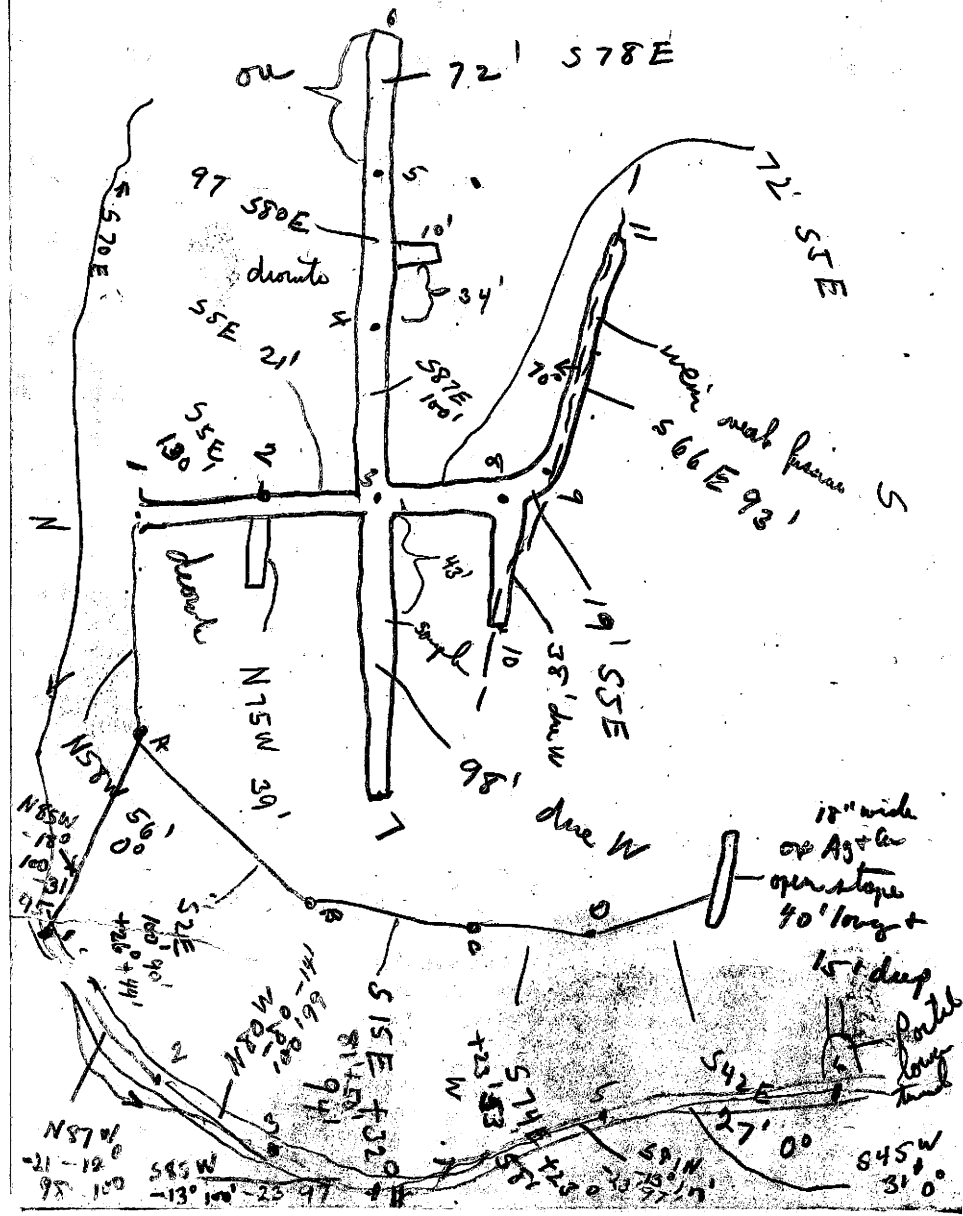
Since there is reasonable promise that the loan will be repaid and copper is still needed it appears that a loan would be justified for this mine

Wm B Mantle

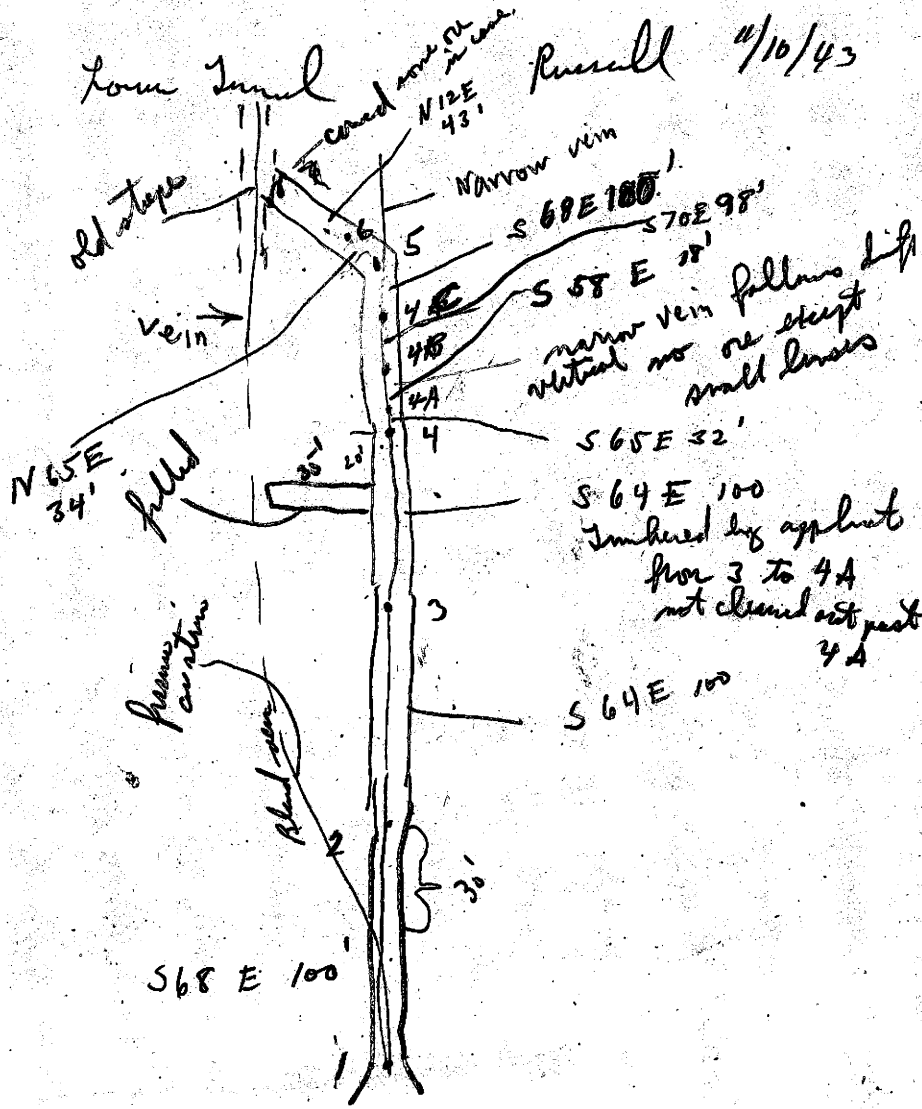
(10)

11/8/43 E Russell

3-5- gouge fissure - streaks of ore



Town Tunnel Russell 4/10/43



$$\begin{array}{r} 58 \\ \times\ 39 \\ \hline 522 \\ 174 \\ \hline 2262 \end{array} \qquad \begin{array}{r} 92 \\ \times\ 58 \\ \hline 736 \\ 460 \\ \hline 5336 \end{array}$$

Equipment:

2 Rock Drills...	$400.00	
Rock Drill, Drill Mountings, Etc.	300.00	
Drill Steel,	50.00	
2 Ore Buckets,	50.00	
		$800.00

Development:

Repair and clean out winze,	$1,250.00	
Sink 35 Ft. @ $25.00 per foot,	875.00	
Drift 250 ft. @ $15.00 per foot,	3,750.00	
Raise 100 ft. @ $12.00 per foot,	1,200.00	
		$6,975.00
Supervision, 6 mos. @ $ 200.00		1,200.00
Int.: $10,000 6 mos. @ 6%		300.00
1 House,		300.00
Freight, Auto expense, Engineering, unforseen,		425.00
		$ 10,000.00

Eqpt.

2 Rock Drills		400
Rock drill Drill Mounting etc		300
Drill steel		50
2 Ore Buckets		50
		800

Development

Repairs & Cottages		1250
Sinks 35 @ 25		875
Drift 250 @ 15		3750
Raise 100 @ 12		1200
		6975
Superintendence 6 mos @ 200		1200
Cut. 1,000 @ 6 mos @ 60		300
1 Horse		300
Fuel, outside supplies, unforseen		425
		10,000

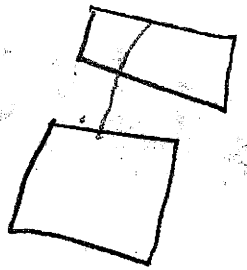
750 Lunch
780 Labor
1530

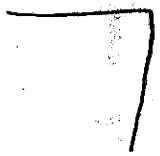
65" wings

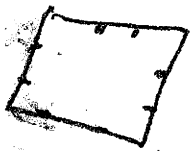
18
30
540
240
780

18
30
540
240
10
240
3-1830 day

24
40
960 - 18
40
720







Eqpt.

Truck

Rock Drills

2 Jack 200	400
~~1 Stoper 200~~	380
Br clamp middle etc.	~~100~~
Steel ~~2 bits~~	50

Mo pipe

Mo Tools

Mo Shop

Mo pump

2 Bucket 50

650

Development

Repair Shaft & C.O.		1250
Drive 140' East	@ 15⁰⁰	2100
Raise 65'	@ 15⁰⁰	970
Sink 100' @	# 25'	2500
Drift 200 @	# 15'	3000

9820

1200

450

2880

Superin 6 mos @ #200

Cont. (on 1500)

Contingencies Frt, engineering auto exp. etc

11670

15720

12120

Eqpt.

2 Rock Drills		400
Mountings etc		300
Steel		50
2 Buckets		50
		840

Development

Rep. Shaft & CO	1250	
Drive 140' East on 65' level @ 15.00	2100	
Raise 65' fm 65' level @ 15	970	
Sink winze 100' @ 25.00	2500	
Drift 200' on 165' level @ 15.00	3000	
Raise 100' - 165' level to 65' level @ 15	1500	
		11320
1 House		300
Supervision 6 mos @ 200		1200
Cont. on 15000 @ 6% (6 mos)		450
Ext. auto exp. engineering, unforeseen		890
		15,000

Contractor will drift for $5 (labor at face only)
" " sink for $8 (" " " ")

Minin 6.50
Muck 5.50

Old shaft is 440 feet deep
vert
Bulkhead at 150 Collar sets gone but shaft mouth O.K.
old pump was set on bulkhead.
Recent Colaboy[illegible] pumped by [illegible] pumps
at surface ap. 150' below bulkhead. Furnished
8000' wat for Eureka mill 1925 then moved pipe to
Midvalue 2½ miles for 6 mos 2" line

220 IR Compr.

2" & 1" [illegible] main
1" water line to mine.
Rail 700 +
1 16 cu ft ore Car
1 Injector type pump
1 Air hoist single drum (small)
Blow out.
1 shop bldg
1 one room dwelling.

Camp
1 cottage
3 men live at camp

---

water wheel at head of mill 165 inches 14 off Iron.
Jack Pump w/4" cyl. 2 6 HP FM Hoppe 2
5 50 gal Fuel Oil Tanks
50 Bbl. Water tank
10 Bbl Circ Water Tank
7 X 10 Jaw Crusher Toggle Broken
1/4" Vib. Screen (Shaking)
10X16"D Pete McFarlane Rolls set to 1/4"
14" Conveyor Belt
1/2 Ton Hopper
2 24" Sluice Box.
1 Plato Conc. Table
1 Primm 5 HP oil Eng. Pulleys Etc w/small comp.
1 FM upright 5 HP to jig & comp → to start
Feeders too flat
Grind is too coarse
No fine Bin & feeding
Disc feeder not installed

37
27
22
21

4) 107
27"

2.6
17.5
11.4
26.6

3.81
3.81
6.40
4.80

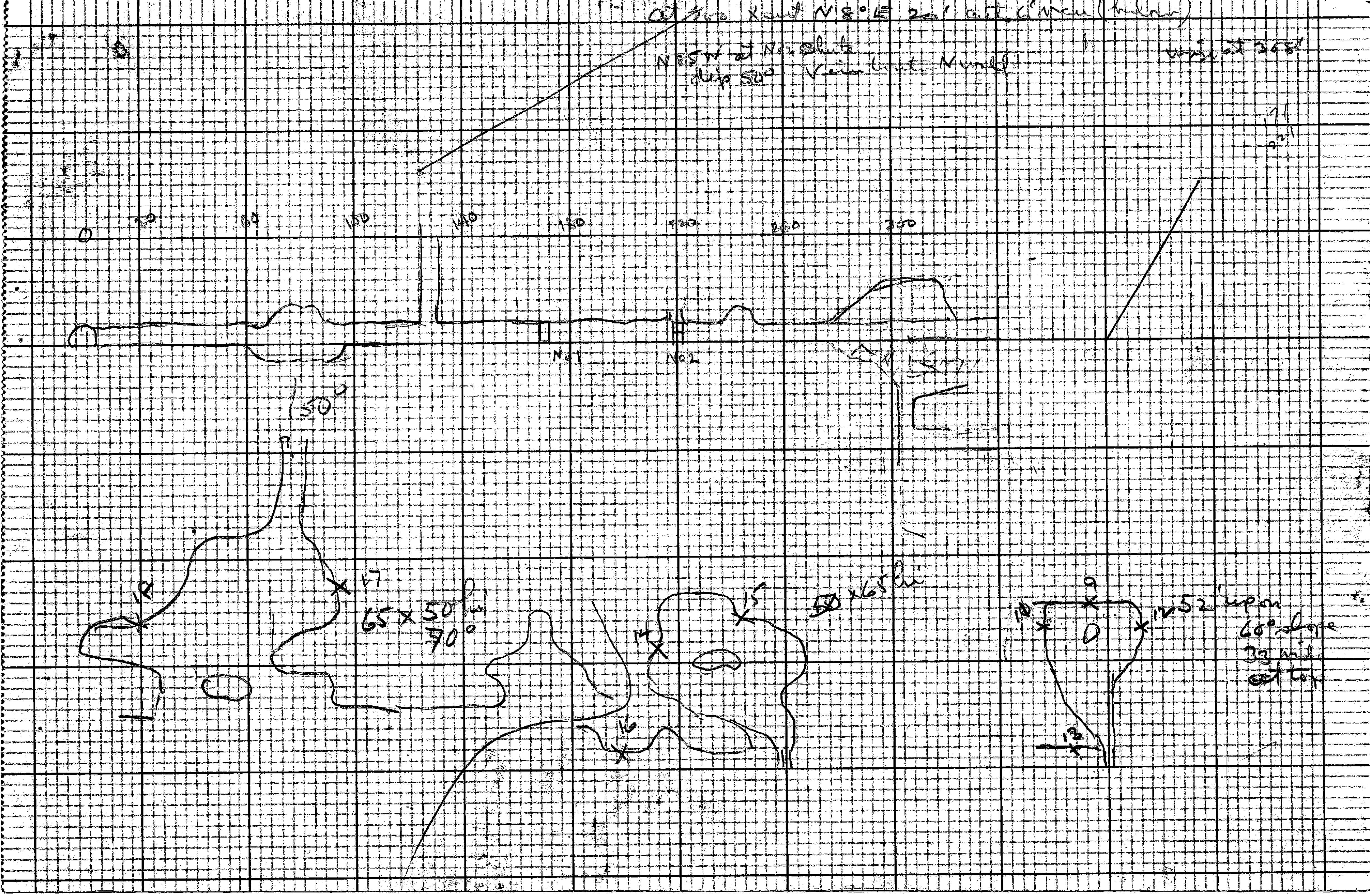
96.4
472.50
250.80
558.60
1378.10

140.97
102.87
140.80
100.80
4854

5.13 - 4

27) 1370

12.88 4.13

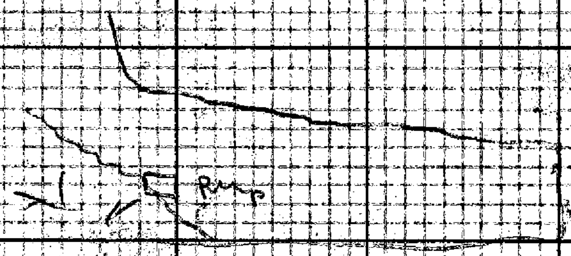

dip 50°
0
20
80
100
140
180
220
260
300
No 1
No 2
50°
17
18
65 x 50
70°
14
15
16
9
10
11
12
52' upon
60° slope

30 to lead
31 to cut
80 ft cut
305
414 to end
479 to [illegible]
320
17 to end
77 total (19) E
80 to (20) W

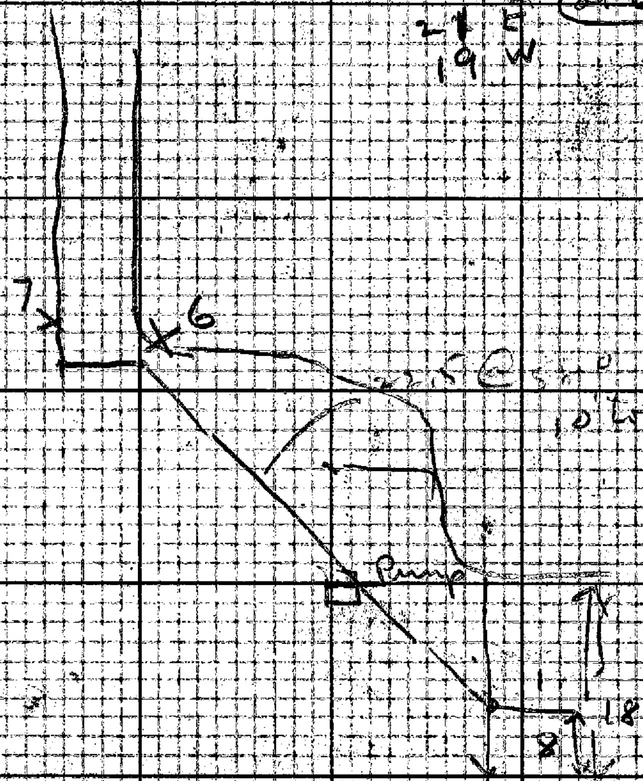
Russel 11/17/42

No 1 face
No 2 10' back 47"
No 3 20' back 50"
No 4 30' back
No 5 40' ✓
6 } First Raise
7 }
8 21' down W side Raise

44 to breakm 52 to muck



29 down to muck
at 6
21 E
19 W



3 cars shipped
from E of raise

Purpose of Loan

Repayment of C Loan	$3875.00
Drifting East, upper tunnel 50'@$17/ft	850.00
Raising to surface from Upper Tunnel 150'@$25/ft	3750.00
Compressor rent 210 cuft $100/mo for 6 mo	600.00
Purchase stoper	350.00
Pipe 2"-550'@ 23¢/ft	126.50
1" 550'@ 11¢	60.50
Steel, fits, explosives, tools	250.00
Road repair 3/4 mile	500.00
Bin + sorting platform	500.00
	$10,862.00
Incidentals	138.00
Total for loan	11,000.00

From ore shipped from development $1200

1 Supt - Russell
2 miners @ $7/day
2 miners @ $6

1 shift

drifting 3'/day. 17 days for shift
raising 2'/day. 755 shifts 2½ months

Wid	Au		Ag		Cu		Pb		Zn	
36	05	1.80	16.9	608.4	3.85	138.6	2.40	86.4	2.35	84.60
30	02	0.60	10.0	360.0	2.33	69.9	3.65	109.5	2.75	82.5
30	06	1.80	10.8	324.0	7.71	231.3	2.43	72.9	3.70	111.0
24	.18	4.32	8.3	199.2	8.05	193.2	3.44	82.6	1.81	43.4
24	03	0.72	4.9	117.6	0.70	16.8	4.22	101.3	4.00	96.0
24	32	7.68	22.2	532.8	5.61	134.6	6.50	156.0	3.72	89.3
168	0.10	16.92	12.4	2082.0	4.67	784.4	3.62	608.7	3.02	506.8
(28")										
36	0.10	3.60	14.4	518.4	5.6	201.6	3.2	115.2		
27	0.25	6.75	17.0	459.0	10.8	291.6	3.8	102.6		
30	0.10	3.00	13.0	390.0	7.8	234.0	5.1	153.0		
18	0.05	0.90	12.0	216.0	17.2	309.6	2.5	45.0		
20	0.10	2.00	11.0	220.0	12.6	252.0	3.4	68.0	5.1	102.0
30	0.05	1.50	8.0	240.0	3.4	102.0	2.4	72.0		
24	0.10	2.40	16.50	396.0	13.3	319.2	4.6	110.4		
24	0.15	3.60	17.0	408.0	5.4	129.6	5.5	132.0		
24	0.05	1.20	9.5	228.0	1.8	43.2	11.0	264.0		
32	0.25	8.00	29.0	928.0	8.0	256.0	5.1	163.2		
265	0.12	32.95	15.1	4003.4	8.07	2138.8	4.62	1225.4	5.1	102.0
(26.5")										
(27")										
16)433	0.11		14.1		6.75		3.45		3.74	

12.4 / .620 — 12.40 / .62 / 8

93.4 / 85.4 — 20 lbs lead

1.12 g / 100 — 4.9 / 0.98 — 93.4 lbs

3.6 — 72.4 lbs lead

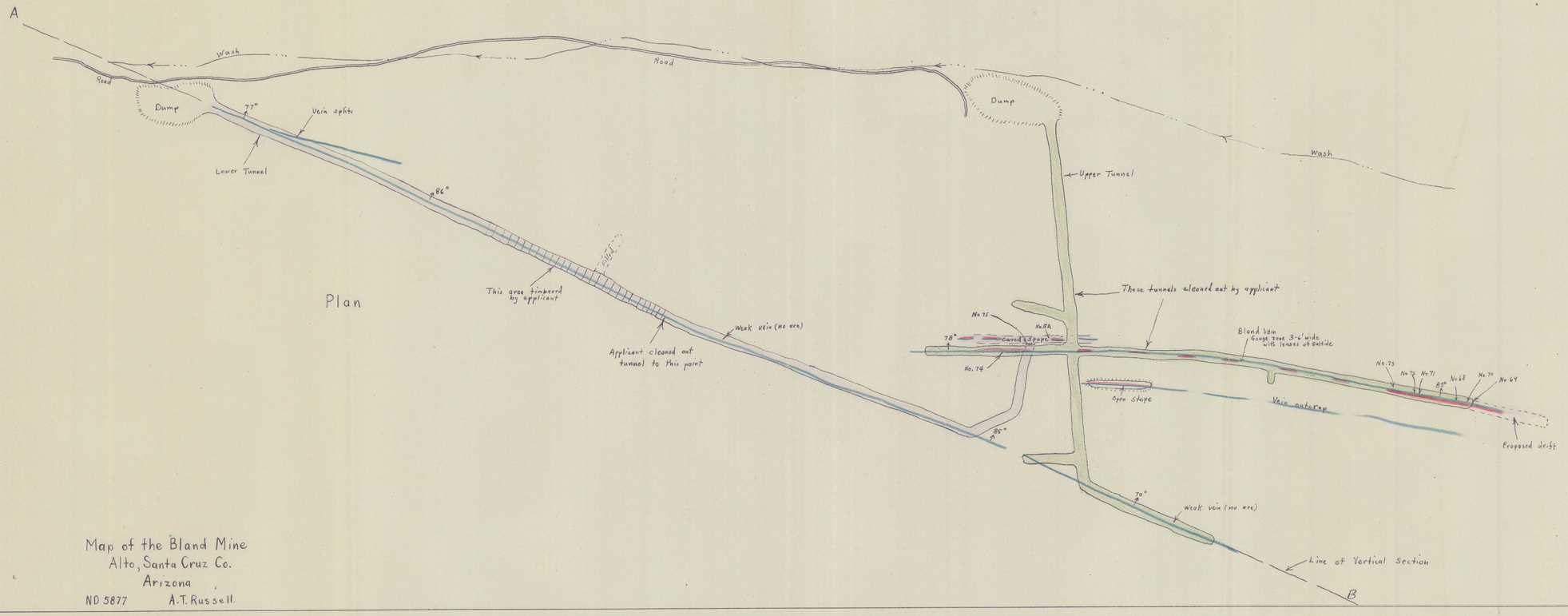
6.50 / 1.6 / 4.9

Average.

.10 oz		3.20
12 oz @ 67 ¢/oz		8.04
6% copper 120 − 10 = 110 lb		15.40
5% lead 100 lb		5.00
lead tons		2.75
Total		$34.39
cost		25.50
Smelting	3.50 net	$ 8.89
Frt	3.50	7.00
hauling 18 mile	2.50	
mining cost	9.00	
royalty	4.00	
	25.50	

1200 tons ore @ $7 net = $8400 net profit

50' more ore ahead add 600 550 tons.
add $5950 on total $14,350



Map of the Bland Mine
Alto, Santa Cruz Co.
Arizona
ND 5877 A.T. Russell.

Scale 1" = 40' Nov. 9, 1943.
Wm. B. Maitland

Samples No. 68-74 incl. by Maitland
Samples No 1-11 incl. by applicant