(147) La-7
Item 66

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RENO OFFICE
RECONSTRUCTION FINANCE CORPORATION
MINING SECTION
FIELD REPORT

Docket No. ND-8053
Date of Authorization for Exam. Rec'd — May 7, 1943
Date of Examination, inclusive — May 11, 1943
Date of Report — May 31, 1943

NAME AND ADDRESS OF APPLICANT

Gus Symanzik and Richard Wrobel
P. O. Box 21
Battle Mountain, Nevada

Correspondent: Same

CHARACTER OF PROJECT

The Applicants have a lease on one claim of an old silver-lead mine called the Armor Mine, formerly known as the Trinity Mine, worked years ago, and which contains extensive workings, and old stopes. For the past two and a half years the Applicants have mined in the old stopes and from old pillars, several thousand tons of silver-lead carbonate ore, doing the mining by hand methods. They now wish to equip mine with an air compressor, air drills, and other mechanical means to facilitate the further extraction of ore. The project concerns primarily the purchase and installation of about $5,000.00 worth of mine equipment. They had proposed in their application the driving of a drift, and the sinking of a shaft, in the sulphide area of the mine, but this contemplated work is not warranted, as the sulphides are too low grade to mine profitably. They have, therefore, suspended this part of the project, and will continue to confine their operations, for a time at least, to the extraction of ore from the oxidized portion of the vein.

The Applicants' estimated budget for equipment needed under this project is as follows:

1-7x5-3/4 x 5 Class WBE (160' actual) Gardner-Denver vertical two-stage stationary air compressor complete with V belt drive and powered by and including one Model K-428 Buda gasoline engine - both units mounted on skids.	$ 2,023.
1-Model S73W Gardner-Denver medium heavy wet sinking drill, hand held, complete with 1" Hex chuck	265.
1-Model D73 Gardner-Denver wet light weight drifting drill comp with chuck for either 1" Rd. Lugged steel, etc.	390.
1-Model R104 Gardner-Denver heavy type self rotated wet stoping drill with chuck for 1" Hex steel	400.
1-Model HB Gardner-Denver Single drum air hoist-cap. 2150#	335.
Drill Steel	250.
Pipe - 2"	250.
Miscellaneous Tools - new bits, shovels, picks, etc.	417.
Building road to place compressor	150.
Buying lumber and erecting building over compressor	150.
10 sacks cement for emplacement for compressor & Labor	20.
Freight on machinery and hauling to mine	350.
	$ 5,000.

LOCATION OF MINE

The Armor Claim, formerly the Trinity, is one of a large group of claims owned by J. A. Langwith and Associates of Winnemucca, Nev. It is in Sec. 10 T. 31 N. R. 43 E. and in the Galena Creek area of the Battle Mountain Mining District, Lander County, Nevada. Battle Mountain, a station on both the Southern Pacific R. R. and the Western Pacific R. R., lies 15 miles to the north. The road from Battle Mountain to the mine is a fair gravel road most of the distance, but a mile of road near the mine is clayey, and in wet weather hauling must be stopped. The elevation of the mine is about 5,000 feet. The conditions, as a whole, for all year operations, are good.

APPLICANTS

The Applicant is a partnership of two young active miners whose industry and mining ability is amply demonstrated by the many cars of ore which they have mined and shipped in the years 1941, 1942 and 1943. (See Settlement sheets). Several thousand tons of ore have been extracted entirely by hand methods, and the results of their efforts reflect great credit to both of them. In spite of the relatively low grade of the ore, they have been able to make a small profit, above wages for themselves, and to pay other expenses of mining. They have good standing in the District, and the writer considers them fully capable of being able to carry on with their project, and ultimately repay whatever sum they might borrow to purchase machinery.

LOAN REQUESTED

The loan requested is the sum of $5,000.00.

GENERAL FEATURES

J. A. Langwith and Associates of Winnemucca, Nevada, are the owners of a group of some 22 claims in the district which includes the White and Shiloh, Trinity (now called Armor) and Avalanche Mines, all prominent in the early days as silver producers. The veins are described by James M. Hill, Some Mining Districts in Northeastern California and Northwestern Nevada: Geological Survey Bulletin 594, 1915 pg. 85-87.

The upper oxidized portion of the veins in the district contain enriched silver chlorides with some carbonates of lead which have proved profitable to mine. However, the sulphide zone containing scattered minor amounts of pyrite, galena and sphalerite has proved to be too low grade, and discontinous in extent, to be considered commercial ore, either as direct shipping ore, or as milling ore.

EXISTING DEVELOPMENT

The existing development in the Armor Mine is clearly shown on the maps accompanying this report. It consists of a main haulage tunnel approximately 600 feet long, from which an 80 foot footwall crosscut, and a couple of short drifts have been driven.

The tunnel follows the single vein most of its length, but as it is in the unprofitable sulphide portion of the vein, little stoping has been done from the tunnel level. Some 60 to 80 feet above the tunnel level, the base of the oxidized, or carbonate, area of the vein is encountered, and from thereon to the surface, a distance of about 100 feet, the vein above the tunnel has been quite thoroughly stoped out. About 500 feet north of the tunnel portal, an old shaft extends from the surface down through the old upper stopes to a depth 60 feet below the tunnel level. That portion of the shaft below the tunnel has been filled with waste, and any working such as drifts, if any, extending from the bottom of the shaft, cannot be verified. According to available maps and records, no lateral development has been done below the tunnel level. The bottom of the stopes are about 60 feet above the tunnel, and are connected to it at intervals by upraised chutes, for the purpose of withdrawing ore from stopes out

through the main haulage tunnel. The attached cross sections clearly show the relationship of the tunnel to the stopes, and also the other workings.

GEOLOGY AND ORE OCCURRENCE

The rock formation in which the Armor vein occurs, is dark gray or blackish shale, the bedding of which is ill defined, warped and crumpled, particularly so in the rock exposed by the 80 foot footwall crosscut. The vein is a persistent well definied sheeted, or fault shear fracturing, having a strike of N. 15 E. and a dip of 60° to the west.

The width of the vein in the oxidized stoped areas is 6 feet to 10 feet, and contains scarcely any gangue minerals. The vein matter is mostly softened oxidized wall rock with seams and patches of yellowish limonite, and lead carbonates. The values are principally in the form of cerargyrite and cerussite, intimately mixed with yellow limonite. Large crystals of minerals are not visible.

In the sulphide portion of the vein, pyrite galena and sphalerite are disseminated in small scattered amounts as replacement ore in the shale, together with some quartz in seams and minor fractures.

The commercial, or profitable ore in this mine is confined to the upper 80 feet to 100 feet of the vein. The chief values are in the silver, with some lead and a little gold. Hardly a trace of zinc is in evidence in the oxidized zone, but in the lower working, sphalerite becomes the principal ore mineral. The mine would be classed as a silver mine, and it is only the silver enriched upper portions of the vein that future work should be done; unless some much richer sulphides are encountered, while mining along the base of the carbonates, the sulphide portion of the vein should not be further explored, or developed.

SAMPLING

The writer took samples of the carbonate ores at the lower north face of stope, and across two benches 5 feet and 10 feet, respectively, south of north face. The Applicants were then mining ore at this area. Mr. Geehan, engineer, U. S. Bureau of Mines, a week or so before, also took samples, in the same area, and the results of both samplings are listed below:

No.	Taken By	Width	Location	%pb	%Zn	Ozs.Au	Ozs.Ag.
51	Bureau of Mines	7.0 ft.	F.W.side of #52	3.7	0.3	.10	16.3
52	" " "	0.7 "	Center of vein	26.1	0.2	.25	118.20
53	" " "	3.8 "	H.W.Side of #52	1.5	0.1	.04	6.70
4	Lessee	6.0 "	Stope	4.2	0.5	.10	10.70
3R	RFC	6.0 "	Across Bench in stope	4.2	Tr.	.22	50.5
4R	RFC	2.5 "	" " "	11.2	Tr.	.26	57.2
5R	RFC	10.0 "	Across N. Face in stope	9.2	"	.30	40.8
Weighted average of above Carbonate ore samples				%Pb 6.1	-	Ozs.Au .18	Ozs. Ag 31.6

NOTE: Above samples taken at places where ore is now being mined. Two men extracting ore. This ore is better grade than that shipped heretofore.
Sample No. 6R of ore in shipping bin assayed 6.8% lead, 0.26 Ozs. gold, 40.8 Ozs. silver.

Some 1360 tons of ore shipped in 1942 from the old stopes average 3.93% lead, .07 ozs. gold, and 13.0 ozs. silver. From a comparison of the two assay results it is evident that the ore now being mined is better than the usual run of ore. The sampling does show that good ore does exist, and the prospect for mining profitable ore, from the unstoped portions of the vein, which lies north of the old stopes, (and is indicated on maps as Block B) is quite promising. It can hardly be expected that the higher grade of ore will prevail for all the ore in Block B, but it is quite reasonable to suppose that the grade will be at least as good, if not better, than past production.

TONNAGES

It is a difficult matter to estimate concrete tonnages, or reserves in an old mine of this sort, but a reasonable estimate of potential ore in Block B, 300 ft. x 100 ft. x 6 ft., allowing for about one third being left as low grade and pillars, would be 9200 tons (say 9,000 to 10,000 tons), and it should assay at least as good as that mined from the old stopes Block A, or 3.93% lead, .07 gold, and 13.0 ozs. silver.

The above potential tonnage and grade is about as near an approach to an estimate as can be made at this time.

The sulphide ores in the mine can be left out of the calculations for it is too low grade to consider as ore, either as shipping or milling ore. Some samples taken in the sulphide portions of the vein are listed and indicated on the maps to which you are referred. The sulphide areas do not average 4% in combined lead and zinc, and contain but little gold and silver.

ORE SHIPMENTS - 1941, 1942, and 1943 (To Apr.)

SYMANZIK AND WROBEL, Lessees

Tons		Content			Amount Paid				
1941	Au Ozs.	Ag Ozs.	Pb Lbs.	Cu Lbs.	Au	Ag	Pb	Cu	Total
1018	84	13745	94040	268	$2688.19	$9226.55	$1139.42		13,054.16
1942									
1361	Crude 97	17074	107009	158	3103.73	11,419.95	1740.25		16,263.93
1503	Dump 88	13188	110314	564	2800.01	8774.45	1597.35		13,171.81
1943 to Apr.1									
158	15	2126	10115	251	486.82	1,501.45	145.37		2,133.64
4040	284	46133	321478	1262	$9078.75	30,922.40	$4622.39		$44,623.54

Premium on lead
1942 and Mar. 1943 only 3,203.85
The gross value of ore shipped plus premium - - - $47,827.39

Net amount received after treatment, freight and royalties

1941	$ 4,884.04
1942	8,346.45
To Mar. 31,1943	865.69
	$ 14,096.18
Prem.1942	2,769.05
" 1943	127.13

Net proceeds to Lessees - - - - $ 16,992.36 on 4033 Tons shipped or $4.00 per ton net return from which mining estimated cost of $3.00 per ton would be deducted, leaving an estimated net profit on the operations of $1.00 per ton above wages and mining expense. It may be noted that no premium was received for 1941 shipments, hence the average returns will be greater for future shipments.
(Complete set of smelter settlement sheets is attached to application)

ANALYSIS OF FUTURE COSTS AND PROFITS PER TON

Assumed analysis of ore .07 ozs. Au, .13 ozs. Ag, 3.93% Pb
(based on average of 1942 shipments)

Smelter Returns per ton

Gold @ 31.818 x .07	$ 2.23	Base Treatment	$ 2.25	
Silver @ .7062 x .13	8.72	Over 7.50	.50	
Lead less 50% .5748 x3.9	1.12			
	12.07	Deduct	2.75	
	2.75			
Value per ton	9.32			
Fgt. 2.12 per ton				
Haul 2.00 " "				
4.12				
	4.12			
Net Proceeds	5.20			
Less 10% royalty	.52			
Smelter net to Lessee	4.68			
Add. prem. on 70% of 78 lbs. lead @ 2 2/3¢	1.51			
Less royalty	.15			
Prem. to Lessee	1.36			
	1.36			
	$ 6.04	Net proceeds to Lessee per ton.		
Estimated mining cost	3.00			
	$ 3.04	Net profit per ton.		

9000 tons potential ore @ $3.04 would be $27,360. potential profit; a sum sufficient to repay loan.

The ore in the carbonate zone is soft, and a $3.00 per ton mining cost is probably a reasonable figure.

It should be noted that much of the profit is due to the premium payments now being made by the Government.

PROPOSED DEVELOPMENT

There is, for a time at least, no development work contemplated, such as shafts, drifts, or crosscuts. The Applicants would continue to mine the carbonate ores in that portion of the vein north of the shaft (Block "B", see map) using the mechanical equipment instead of mining by hand methods. After stoping well to the north of the present working face, they may then decide to drive the main tunnel north to get it under new stope, and connect additional chute upraises.

COMMENTS

The favorable features of this project are that:

1. The Applicants are capable miners.

2. The past production record is good, and shows that they can ship the grade of ore being mined at a profit.

3. There appears to be enough potential ore in sight to continue their operation for about another two years.

The unfavorable features are that the lease is of short duration. It should be extended definitely for a period of at least two years. Also it should be noted that their profits depend largely on the Government premium being now paid on lead, and if this should terminate, the profits would be exceedingly small.

One other consideration that might be called to your attention is, that this mine is primarily a silver mine, and that the amount of lead produced is relatively small.

The Applicants' budget for machinery needed is somewhat high as they have figured on a new compressor and new drills; secondhand equipment should do, and would reduce the budget about twenty-five per-cent.

A copy of the lease agreement and a copy of the partnership agreement have not yet been received. They have been requested and will follow this report as soon as received.

RECOMMENDATION

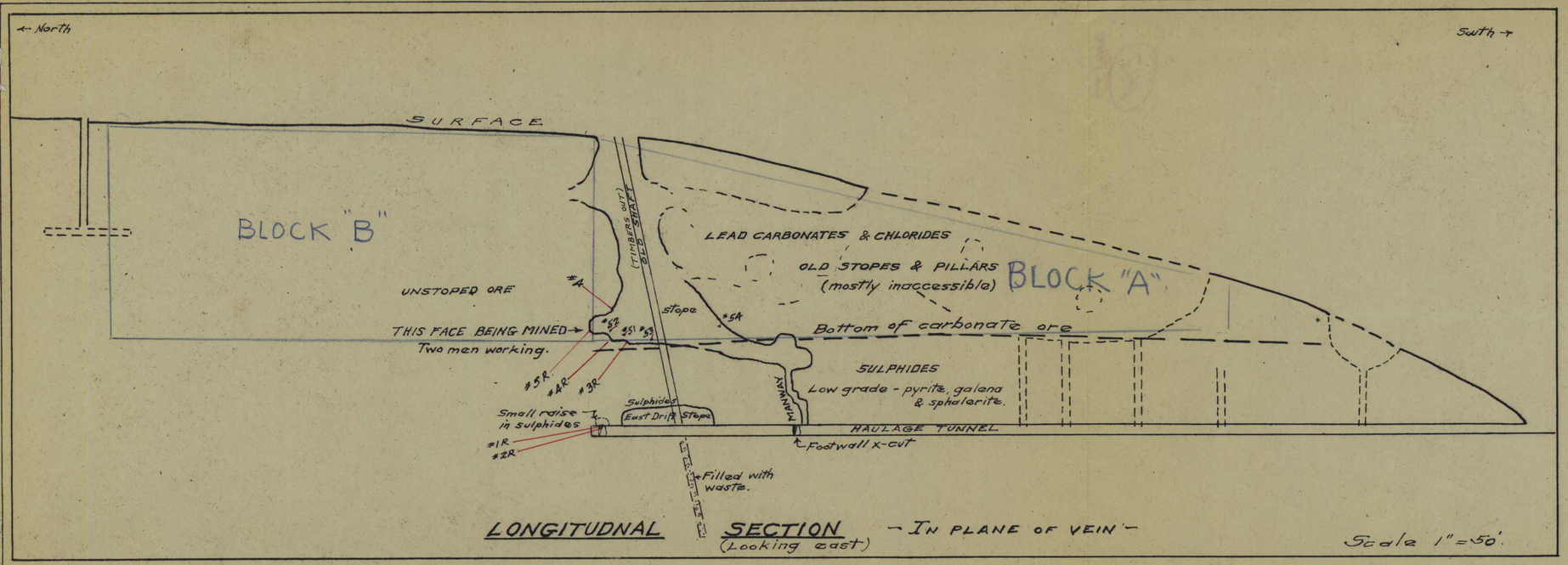
It is the writer's opinion that these Applicants are very deserving of assistance, and that if a loan is granted, it would be repaid. Therefore, a loan in a sum not to exceed $5,000.00 is recommended.

Respectfully submitted,

Jasper T. Robertson

JASPER T. ROBERTSON
Engineer

NO-8053



LONGITUDNAL SECTION (Looking east) — IN PLANE OF VEIN —

Scale 1" = 50'

1360 TONS OF CARBONATES SHIPPED FROM ABOVE STOPES
DURING 1942 - ASSAYED 3.93% Pb .07 ozs Au & 13.0 ozs. Ag

CARBONATE ORE SAMPLING

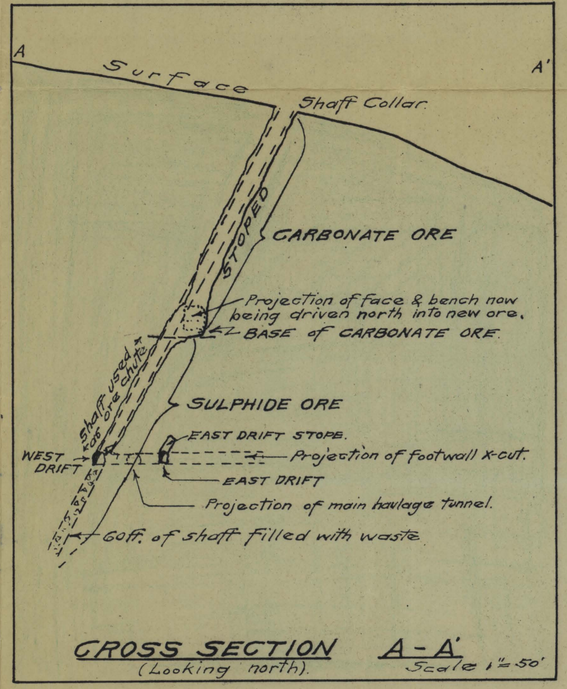
No.	TAKEN BY	WIDTH	LOCATION	% Pb	% Zn	ozs. Au	ozs Ag
51	Bureau Mines	7.0 Ft.	F.W. Side of 52	3.7	0.3	.10	16.3
52	" "	0.7 "	CENTER of VEIN	26.1	0.2	.25	118.20
53	" "	3.8 "	H.W. side No. 52	1.5	0.1	.04	6.70
4	LESSEE	6.0 "	Stope	4.2	0.5	.10	10.70
3R	R.F.C.	6.0 "	Across BENCH IN STOPE	4.2	Tr.	.22	50.5
4R	R.F.C.	2.5 "	" " " "	11.2	"	.26	57.2
5R	R.F.C.	10.0 "	Across N. Face IN STOPE	9.2	"	.30	40.8
WEIGHTED AVERAGE OF ABOVE CARBONATE ORE SAMPLES				% Pb 6.1	—	ozs. Au .18	ozs. Ag 31.6

Note: Above samples taken at places where ore is now being mined. Two men extracting ore. This ore is better grade than that shipped heretofore.
Sample No. 6R of ore in shipping bin assayed 6.8% lead, 0.26 ozs. gold, 40.8 ozs. Silver.

SULPHIDE ORE SAMPLING

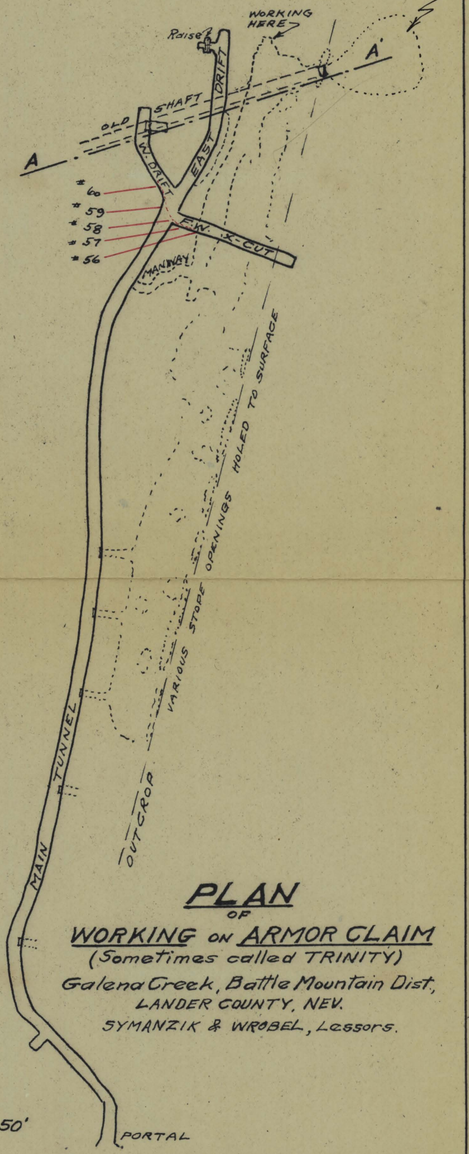
No.	Taken by	WIDTH	LOCATION	% Pb	% Zn	ozs. Au	ozs. Ag
55	Bureau Mines	2.5 Ft.	WALL ROCK	0.8	0.3	.03	1.70
56	" "	5.8	Foot wall	1.2	1.2	.02	2.85
57	" "	2.5	W. of 56	1.6	1.3	.04	2.55
58	" "	5.5	W. of 57	2.1	2.0	.02	3.75
59	" "	2.5	W. of 58	2.2	4.2	.01	3.05
60	" "	17.1	W. of 59	0.8	1.7	.10	0.95
1R	R.F.C.	GRAB	ORE BROKEN DOWN FROM RAISE	0.2	4.6	.06	2.80
2R	R.F.C.	"	" " " "	Trace	3.1	.08	2.80

The sulphides are too low grade to be considered commercial ore.



CROSS SECTION A-A' (Looking north). Scale 1" = 50'

1503 Tons of old dump shipped in 1942 — Aver. Assay 0.05 ozs Au 3.0 ozs Ag & 3.6% Pb



PLAN OF WORKING ON ARMOR CLAIM
(Sometimes called TRINITY)
Galena Creek, Battle Mountain Dist, LANDER COUNTY, NEV.
SYMANZIK & WROBEL, Lessors.

Scale 1" = 50'

MAY 1943 J.J.R.

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