UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Mining Division
Date Rec'd.
APR 6 - 1953
BUREAU OF MINES
Denver, Colorado

APR 3 1953

Mr. W. H. King
Executive Officer
Region IV
224 New Customhouse Building
Denver 2, Colorado

Dear Mr. King:

This will acknowledge your memorandum dated March 30, 1953 requesting information on an application from Metal Producers Company (Zinc), Docket No. DMEA-262.

This application was for a production loan, and was transferred to the Defense Materials Procurement Agency when that agency was set up. We have been informed that denial of this application was recommended by the Defense Materials Procurement Agency to the Reconstruction Finance Corporation on January 7, 1952.

Sincerely yours,

George C. Selfridge

George C. Selfridge, Chairman
Operating Committee

RAB.

HMC

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

APR 3 1953

Mr. W. H. King
Executive Officer
Region IV
224 New Customhouse Building
Denver 2, Colorado

Dear Mr. King:

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This application was for a production loan, and was transferred to the Defense Materials Procurement Agency when that agency was set up. We have been informed that denial of this application was recommended by the Defense Materials Procurement Agency to the Reconstruction Finance Corporation on January 7, 1952.

Sincerely yours,

George C. Selfridge, Chairman
Operating Committee

224 New Customhouse
Denver 2, Colorado

March 30, 1953

Memorandum

To: Chairman, Operating Committee

From: Executive Officer, DMEA Field Team, RegionIV

Subject: Docket No. DMEA 262, Metal Producers Co. (Zinc)

Please give us the status of Docket No. DMEA 262. Our latest information on this application is dated June 12, 1951 and we do not have any record of the docket having been closed.

W. H. King

W. H. King

JFS:fw

cc SRWilson
Subject
Chron
Koschmann (2)

August 1, 1951

Metal Producers
1075 Security Building
510 South Spring Street
Los Angeles, California

Re: DMA Docket "G", Zinc
Keen Silver Mine, Utah

Gentlemen:

This is with reference to your letter of July 1, 1951 requesting certain information before completing DMA Form MS-101.

You indicate that the funds needed would be for additional mill equipment and working capital, and state that you feel that your mill, crushing plant and trucks would provide enough security for the amount of loan. We would not be in a position to determine whether or not these items would offer adequate security until we had an opportunity to study your application. In this connection, you should list in the application the collateral and its value that you are willing to offer.

You realize, of course, that the collateral required would be greater for a marginal operation than for one having large reserves and/or high potentiality of profits. These factors are also considered in determining repayment provisions, since repayment depends upon the rate of production but can be sustained over the term of the loan and the profits that would be available from the operations. The estimated production rate, cost of operations and profits should therefore be given in detail in the application.

If a loan is granted, the terms and conditions would be determined by DMA. The papers for the loan would be worked out between you and Reconstruction Finance Corporation, which would act as Fiscal Agent for DMA. There would be no need to negotiate with Reconstruction Finance Corporation as to terms and conditions for the loan.

You should answer the questions in the application as completely as possible. If any questions do not apply to your project, however, it is not necessary to answer them, but it would be helpful if you would indicate that they do not apply.

I trust that the foregoing furnished you with the information desired.

Sincerely yours,

C. O. Mittendorf
C. O. Mittendorf, Director
Production Expansion Division

PEM:
COMittendorf/mch
cc to: Adm. Reading File
Reports and Records
Mittendorf, Hunt
Blakemore, Billings, McKnight, Region IV ( ), Docket Corr

Mailed

Refer to	Noted	Date
Answered		

REGIONAL DIRECTOR'S OFFICE REGION IV
JUL 27 1951
BUREAU OF MINES DENVER, COLO.

JUL 2 1951

July 18, 1951

Metals Producers, Inc.
1079 Security Building
510 South Spring Street
Los Angeles 13, California

Re: DMA Docket 768, Zinc
Mount Silver Mine, Utah

Gentlemen:

In reference to your letter of June 4, 1951 which was attached to the completed form ME-100, it is noted that a considerable portion of the exploration work covered in your application of December 27, 1950 has already been satisfactorily accomplished. You are advised that expenses incurred prior to the effective of an Exploration Contract are not eligible for DMA participation, and, since there is no Exploration Contract in effect with you, your request for DMA participation in the above expense is prohibited.

As we now understand it, there is no longer any necessity or justification for exploration, since you have already proven to your own satisfaction that there is sufficient zinc mineral in sight to support a Governmental loan in the amount of $175,000.00. You estimate that this amount is required for purchasing and installing additional facilities, namely; a sink-float plant, a calciner and baghouse, and working capital in order to convert your zinc mineral into a merchantable product.

In order to qualify for a loan of this type (R.F.C.), it will be necessary for you to obtain subordination agreements from all individuals or organizations to whom you are in any way indebted. In addition, you should state if the owners of the Mount Silver Zinc are willing to subordinate their interests until such loan, if granted, is repaid.

It will be necessary for you to fill out form ME-111 (5 copies of which are enclosed) and mail the original and three copies to this office. It will not be necessary for you to fill out any additional copies of ME-100, as these have already been filed in this office.

However, it is essential that you describe exactly what product you expect to market, since it is not fully clear to us whether you intend to fume off the zinc in the form of a rather high grade oxide or to simply

calcine the earlomit concentrate to a mixed oxide of iron and zinc. If the latter is the final product, you should have your prospective customers outline their proposed schedule of payment for sam and the quantity for which they are willing to contract, because it is not generally known that there is a market for a zinc product of this composition.

On receipt of the completed form DP-101, this office will be prepared to make a recommendation for the loan sought if the facts warrant it.

Sincerely yours,

O. O. Mittendorf

O. O. Mittendorf, Director
Production Expansion Division

Enclosures-5

PBBlakemore/mah
cc to: Messrs. Mittendorf, Olund
Mr. Blakemore
Mr. Harres
Mr. McKnight
Field III (7) ✓
Adm. Reading File
FILES

July 18, 1951

Metals Producers, Inc.
1015 Security Building
510 South Spring Street
Los Angeles 13, California

Re: DMA Docket 76, Zinc
Lone Silver Mine, Utah

Gentlemen:

In reference to your letter of June 8, 1951 which was attached to the completed form DM-100, it is noted that a considerable portion of the exploration work covered in your application of December 27, 1950 has already been satisfactorily accomplished. You are advised that expenses incurred prior to the effective of an Exploration Contract are not eligible for DMA participation, and, since there is no Exploration Contract in effect with you, your request for DMA participation in the above enterprise is prohibited.

As we now understand it, there is no longer any necessity or justification for exploration, since you have already proven to your own satisfaction that there is sufficient zinc mineral in sight to support a governmental loan in the amount of $175,000. You estimate that this amount is required for purchasing and installing additional facilities, namely: a sink-float plant, a calciner and baghouse, and working capital in order to convert your zinc mineral into a merchantable product.

In order to qualify for a loan of this type (i.e. .C.), it will be necessary for you to obtain subordination agreements from all individuals or organizations to whom you are in any way indebted. In addition, you should state if the owners of the Lone Silver Mine are willing to subordinate their interests until such loan, if granted, is repaid.

It will be necessary for you to fill out Form DM-101 (3 copies of which are enclosed) and mail the original and three copies to this office. It will not be necessary for you to fill out any additional copies of DM-100, as these have already been filed in this office.

However, it is essential that you describe exactly what product you expect to market, since it is not fully clear to us whether you intend to fume off the zinc in the form of a rather high grade oxide or to simply

calcine the carbonate concentrate to a mixed oxide of iron and zinc. If the latter is the final product, you should have your prospective customers outline their proposed schedule of payment for same and the quantity for which they are willing to contract, because it is not generally known that there is a market for a zinc product of this composition.

On receipt of the completed Form [illegible]-101, this office will be prepared to make a recommendation for the loan sought if the facts warrant it.

Sincerely yours,

C. O. Mittendorf

C. O. Mittendorf, Director
Production Expansion Division

Enclosures-5

FBBlakemore/mah
cc to: Messrs. Mittendorf, Olund
Mr. Blakemore
Mr. Herres
Mr. McKnight
Field III (7)
Adm. Reading File
FILES

Mr. Ben Cochenhour
Ogallala, Nebraska

June 12, 1951

Memorandum

To: Coordinating Committee, Uranium Minerals Administration

From: DMM Field Team, Region IV

Subject: Mr. Mr., Ralph Brockmeyer, Inc., your memorandum dated May 17, 1951.

Herewith are copies of comments by the U. S. Geological Survey and Bureau of Mines conferees regarding availability of informal progress estimates and comments by the Chief, Mining Division, Region IV, Bureau of Mines. Since difficulties of operation have not been resolved, the suggestions submitted by each are presented for your consideration.

The Summary, Conclusions and Recommendations have been revised to include the views of both cooperating agencies and should reflect regions reflectively submitted.

F. Y. Allman, Alternate

L. E. Hindman

Attachments

FYA/cl
copy to DMM files, Kaschmann, Allman, Roberts, Zimmerley and Wilson

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

Mining Division
Date Rec'd.
JUN 11 1951
BUREAU OF MINES
Denver, Colorado

June 8, 1951

Memorandum

To: Paul T. Allsman, Chief, Mining Division, Region IV

From: Chief, Utah-Wyoming Branch, Mining Division

Subject: DMA-262, Horn Silver mine report

We have not received a copy of the subject report. Will you please determine if one is available for this office.

Stephen R. Wilson

Stephen R. Wilson

Rec'd
6/12
cp

DMA

June 4, 1951

Memorandum

To: DMA Field Team, Region IV
(Through P. T. Allsman)

From: Chief, Utah-Wyoming Branch, Mining Division

Subject: DMA Docket 262, Metal Producers, Inc., Horn Silver mine, Beaver County, Utah. Your memorandum of May 28, 1951.

We have discussed the ore reserve estimates, as shown in the subject report, with members of the Geological Survey, but have not been able to reconcile the difference in total tonnage. However, an explanation of the method used in estimating the reserves should serve to clarify the problem.

The Bureau and the Survey men concur in general in their opinions of secondary zinc deposition and structural control on the property, but differ in their methods of estimating reserves. Both estimates are based on assay data made available by Metal Producers, Inc., as a result of diamond drill and percussion drill holes on the 650-, 800-, and 1,000-foot levels. This drilling has not completely explored the areas involved, but has indicated the presence of oxidized zinc ores assaying from 1 to 25 percent.

It is agreed that zones of brecciation in the footwall limestone of the Horn Silver fault beneath the primary ore bodies, are receptive to secondary zinc deposition. It is reasonable to assume that the brecciated zones are present over the horizontal and vertical extent of the fault and that deposition of zinc leached from the primary ore bodies has occurred in these zones below the full length of the leached ore channel.

The ore areas in plan on the 650-, 800-, and 1,000-foot levels as outlined by the Bureau and the Survey, are in essential agreement. The difference in total estimated tonnages as calculated by the Bureau and Survey men, is the result of different methods in projection of the areas to form blocks. There are few or no assay data available between the 650- and 800-foot levels and the 800- and 1,000-foot levels to indicate otherwise, thus the Bureau engineers believe that deposition of secondary zinc followed somewhat the same erratic pattern vertically as is shown by the results horizontally on the 650-, 800-, and 1,000-foot levels. The Bureau men therefore projected the areas outlined on the three levels upward and downward in the form of pyramids and wedges for distances, which in their judgment appear to be reasonable. This resulted in an inferred estimate of 93,300 tons averaging 12.4 percent zinc. The Survey men projected their areas from one level to another on the assumption that the structures which controlled the secondary zinc deposition are continuous from level to level. Their inferred estimate is 189,300 tons assaying 10.05 percent zinc.

The Bureau of Mines estimate is undoubtedly conservative, but is believed to be reasonable in view of the limited amount of data available. A large part of the Horn Silver workings are inaccessible. Probably less than 20 percent of the favorable footwall limestone is exposed in the areas explored by Metal Producers, Inc. on the 650-, 800-, and 1,000-foot levels. Considering the Bureau of Mines estimate of 93,300 tons to be reasonable for the explored area, it follows that a more complete exploratory program may disclose a much larger tonnage, possibly 500,000 tons.

Stephen R. Wilson

Copy to-
PT Allmann
Files
DC

DMA, Rocky Mountain Area
Denver, Colorado

June 12, 1951

Memorandum

To: Coordinating Committee, Defense Minerals Administration

From: DMA Field Team, Region IV

Subject: DMA 262, Metal Products, Inc., your memorandum dated May 17, 1951

Herewith are copies of comments by the U. S. Geological Survey and Bureau of Mines members regarding reconciliation of inferred reserve estimates and comments by the Chief, Mining Division, Region IV, Bureau of Mines. Since difference of opinion have not been reconciled, the arguments submitted by each are presented for your consideration.

The Summary, Conclusions and Recommendations have been revised to include the views of both dissenting agencies and should replace copies originally submitted.

Paul V. Allsman
P. V. Allsman, Alternate

A. H. Koschmann
A. H. Koschmann

Attachments
PVA/cl
copy to DMA files, Koschmann, Allsman, Roberts, Zimmerley and Wilson

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Room 307, 320 South Main
Salt Lake City, Utah
5 June 1951

Memorandum

To: DMA Field Team, Region IV

From: F. E. Hote and David O. Arnold through Ralph J. Roberts, Acting District Supervisor, U. S. Geological Survey, Utah-Nevada District

Subject: DMA 262, Metal Producers Inc., Horn Silver Mine, Beaver Co., Utah

In reply to your memorandum dated May 28, 1951, concerning the difference between Geological Survey and Bureau of Mines reserve tonnage figures at the Horn Silver mine, Beaver county, Utah:

The suggestion has been made that the Survey geologists and Bureau engineers endeavor to reconcile the difference between the reserve figures calculated by each. In the report by the Survey geologists the ore reserves were computed to be 189,000 of oxidized zinc ore containing 10.0 percent zinc. The Bureau engineers, on the other hand, computed the reserves to be 93,000 tons of ore containing 12.5 percent zinc.

Informal meetings between Survey geologists and Bureau engineers have failed to reconcile these differences. For this reason it was decided that separate statements giving reasons for the discrepancies would be preferable to a joint statement.

The discrepancy in reserve figures largely results from differences in methods of calculation used by the Survey geologists and the Bureau of Mines engineers. Essentially the same drill hole and assay data, furnished by the mine operators, were used by the geologists and engineers. The area of the ore blocks on the levels used by the geologists and engineers to calculate the reserves is very similar as indicated by the following table:

Level	Area (sq.ft.) Geological Survey	Area (sq.ft) Bureau of Mines
650	1,965	1,880
800	6,408	4,486
1,000	7,844	7,146
Total	16,217	13,512

Bureau of Mines area factor is 83% of the Geological Survey.

A factor of 12 cu. ft. per ton was used by both the geologists and engineers to convert volume to tons. The tonnage figures calculated by the Survey geologist involved slightly larger blocks and the grade was correspondingly lower, i. e. 10.5 percent zinc as compared to 12 percent zinc. This accounts for about 17 percent of the discrepancy, but the major difference is due to the fact that the Survey geologists considered the ore blocks to have continuity between levels and, therefore, computed the reserves on this basis.

The zinc ore bodies at the Horn Silver mine occur in limestone and generally follow persistent brecciated zones associated with cross faults. The width of the brecciation is variable along the zones, but the ore is closely localized by the brecciation. The ore minerals were brought in by solutions and were deposited in open spaces. In general, the more intense the brecciation, the larger the ore body.

The ore exposed on the levels is spotty, but this was fully taken into consideration when the reserve tonnages were calculated. Similarly, it is expected that between the levels the ore will be spotty. This does not mean, however, that the existence of ore between levels is in doubt; there is every reason to expect that the ore will contain about the same percentage of zinc if sampled vertically between levels as horizontally along levels.

For this reason the ore bodies were considered by the Survey geologists to be pipe-like bodies and chimneys along favorable structures that are continuous. The Bureau engineers have stated on page 10 of their report that "It appears logical to assume that the brecciated limestone which undoubtedly influences deposition of secondary zinc on the 550-, 800-, and 1050-foot levels exists between levels. It also appears logical to assume erratic distribution of secondary zinc between levels as indicated by sampling on the levels". Their reserve calculations were not made in accordance with this interpretation, however, but instead they calculated the ore bodies as wedges and pyramids, ending them a short distance above and below levels. This interpretation completely ignores the structural controls of the ore. Perhaps this would be true if there were a strong horizontal stratigraphic control, but there is no evidence of such a control.

It seems appropriate to point out that although the engineering report gives a figure of 93,000 tons for the inferred reserve, it is stated in addition that there may be 500,000 tons or more of ore with an average grade of 15 percent Zn. No data are given to support this assumption. The Bureau engineer stated, however, that part of this 500,000 tons of ore would be between the levels on the area now under discussion. The remainder of the 500,000 tons is supposed to be in another part of the mine. The 500,000 ton figure was pulled out of the air, and is just a "guess" based on the past production.

It may well be that additional tonnage can be discovered by carefully planned exploratory work somewhere on Horn Silver ground. The problem at hand at the moment, however, is to evaluate the oxidized zinc tonnage in a certain closely-defined block. Reference to 500,000 tons of "possible ore" is confusing and irrelevant. It is recommended that all references to this figure in the Horn Silver report be deleted.

It should also be called to the attention of the field team that prior to the field examination and transmittal of the report, it was agreed in conference with Mr. Hunt and Mr. Kaufmann at the Geological Survey offices in Salt Lake City that the calculation of indicated and inferred reserves where geologic interpretations were involved was the responsibility of the Geological Survey members of the examination team. In the Summary,

Conclusions and Recommendations, which presumably were prepared at Denver, the reserve figures from the engineering report were quoted, but the reserve data from the geologic report were not mentioned. It is suggested that the reserve figures calculated by the Geological Survey be quoted in the section on Summary, Conclusions, and Recommendations. If the Bureau engineers wish to register a dissent, an additional paragraph explaining their reasons should be attached.

A revised version of the section on Summary, Conclusions, and Recommendations is attached.

cc: Reve

s/ Preston E. Hohs

s/ David C. Arnold

Mining Division
Region IV

May 22, 1951

Memorandum

To: DMA FieldTeam, Region IV

From: Chief, Mining Division

Subject: DMA 262, Metals Producers, Inc., Hermsilver mine, Beaver county, Utah. Memorandum of Coordinating Committee, May 17.

First, I agree with the Committee that my reasoning for reversing the investigators should have been presented. Before going into that, it should be pointed out that the "discrepancies" in the inferred reserves probably are very small when both tonnage and grade are considered, that is, 93,000 tons at 12.4 percent zinc against 189,000 at 10 percent zinc. Visual inspection of the tonnage and grade in various blocks in each estimate indicates tonnages would be about the same if either estimate was changed to correspond to the other in grade. Therefore, resubmission of the report to the investigators for reconciliation of the "differences" does not appear justifiable.

Whether or not the exploration should be approved or disapproved depends first upon policy. Because of the fact that early applications were considered as direct loans, the investigators have been inclined to be ultra conservative. Since the exploration program became established and because of the participation by the operator, I believe the attitude should be changed and that we should be optomistic, liberal and take a long-range viewpoint. Judging from correspondence from Washington dealing with numerous other applications, it appears that this is the Washington viewpoint.

There is reason to believe that there are substantial reserves of low grade - 10 to 15 percent plus - zinc in numerous areas of the west. No one has been interested in developing them because of the lack of a process and no one has been interested too much in developing a process because so little is known about the tonnages, grade and physical characteristics. I believe solution of the problem should start with establishing the reserves and since the Hermsilver mine contains potentially a large reserve, it would seem wise to encourage exploration there. Sufficient reserves will establish an incentive to work out the metallurgy and there is no reason to believe a more favorabe price-cost relation will not result when zinc becomes tighter.

Admittedly this is looking into the future, but why not?

P. T. Allsman

Attachment

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By David C. Arnold[1] M. H. Howard[2] R. F. Bushholtz[3] C. H. Schaab[3]

Metal Producers, Inc., lessee of the Horn Silver mine, Beaver county, Utah, has made application to the Federal Government for a loan of $55,000 to complete an underground exploratory project on zinc-oxide ores. The proposed program is part of the company's plan of a full-scale mining and milling operation on the property. Personnel of the Bureau of Mines and Geological Survey examined the property during February and March 1951. This report and the attached metallurgical report were prepared as a result of the examination by Bureau of Mines engineers.

The major primary ore bodies of the Horn Silver mine are found in brecciated zones associated with the northerly striking Horn Silver fault. Removal of zinc from the primary ore bodies and subsequent secondary deposition in the brecciated zones of the footwall limestone has formed irregular bodies containing zinc carbonate and other oxide zinc minerals. This mineralization has been disclosed in drill holes and underground openings, but the ore bodies have not been completely outlined.

Bureau of Mines engineers, using sample data of Metal Producers, Inc., estimate that 93,300 tons of inferred ores assaying 12.4 percent zinc is present between the 650- and 1,000-foot levels.

The Geological Survey member of the field examiners, using sample data furnished by Metal Producers, Inc., estimates a reserve of 8,300 tons of indicated ore averaging 5.45 percent zinc, and 189,000 tons of inferred ore averaging 10.0 percent zinc.

The objective of the proposed program is more complete exploration of the oxide ore bodies to outline sufficient ore reserves to justify mill expansion and possible processing plant construction. The leasing company has proposed that exploration consist of drifting, raising, long-hole percussion drilling, and diamond drilling at a total cost of $55,000.

It is concluded that a profitable mining and milling operation on zinc-oxide ore bodies of the Horn Silver mine will depend upon disclosure of sufficient tonnage of ores, development of ore dressing and processing methods for recovery of zinc, and a higher price for contained zinc in the concentrate.

Recommendations are made that approval of the requested exploratory loan for the Horn Silver mine be withheld pending a higher price for contained zinc in oxide ores and a greater market for the product than exists locally.

It appears reasonable that a full scale, 200-ton per day mining and milling operation can be established on the Horn Silver property if the above conditions are in force and the expected tonnage of ores is outlined by the proposed exploration.

1/ Geologist, U. S. Geological Survey
2/ Mining Engineer, Bureau of Mines
3/ Metallurgist, Bureau of Mines

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Mines

1600 East First South Street
Salt Lake City 1, Utah
June 4, 1951

Memorandum

To: DMA Field Team, Region IV
(Through P. T. Allaman)

From: Chief, Utah-Wyoming Branch, Mining Division

Subject: DMA Docket 262, Metal Producers, Inc., Horn Silver mine, Beaver county, Utah. Your memorandum of May 28, 1951

We have discussed the ore reserve estimates, as shown in the subject report, with members of the Geological Survey, but have not been able to reconcile the difference in total tonnage. However, an explanation of the method used in estimating the reserves should serve to clarify the problem.

The Bureau and the Survey men concur in general in their opinions of secondary zinc deposition and structural control on the property, but differ in their methods of estimating reserves. Both estimates are based on assay data made available by Metal Producers, Inc., as a result of diamond drill and percussion drill holes on the 650-, 800-, and 1,000-foot levels. This drilling has not completely explored the areas involved, but has indicated the presence of oxidized zinc ores assaying from 1 to 25 percent.

It is agreed that zones of brecciation in the footwall limestone of the Horn Silver fault beneath the primary ore bodies, are receptive to secondary zinc deposition. It is reasonable to assume that the brecciated zones are present over the horizontal and vertical extent of the fault and that deposition of zinc leached from the primary ore bodies has occurred in these zones below the full length of the leached ore channel.

The ore areas in plan on the 650-, 800-, and 1,000-foot levels as outlined by the Bureau and the Survey, are in essential agreement. The difference in total estimated tonnages as calculated by the Bureau and Survey men, is the result of different methods in projection of the areas to form blocks. There are few or no assay data available between the 650-, and 800-foot levels and the 800- and 1,000-foot levels to indicate otherwise, thus the Bureau engineers believe that deposition of secondary zinc followed somewhat the same erratic pattern vertically as is shown by the results horizontally on the 650-, 800-, and 1,000-foot levels. The Bureau men therefore projected the areas outlined on the three levels upward and downward in the form of pyramids and wedges for distances, which in their judgment appear to be reasonable. This resulted in an inferred estimate of 93,300 tons averaging 12.4 percent zinc. The Survey men projected their areas from one level to another on the assumption that the structures which controlled the secondary zinc deposition are continuous from level to level. Their inferred estimate is 189,300 tons assaying 10.05 percent zinc.

The Bureau of Mines estimate is undoubtedly conservative, but is believed to be reasonable in view of the limited amount of data available. A large part of the Horn Silver workings are inaccessible. Probably less than 30 percent of the favorable footwall limestone is exposed in the areas explored by Metal Producers, Inc. on the 650-, 800-, and 1,000-foot levels. Considering

.he Bureau of Mines estimate of 93,300 tons to be reasonable for the explored area, it follows that a more complete exploratory program may disclose a much larger tonnage, possibly 300,000 tons.

/s/ Stephen R. Wilson

224 New Customhouse
Denver, Colorado

June 12, 1951

Memorandum

To: Coordinating Committee, Defense Minerals Administration

From: DMA Field Team, Region IV

Subject: DMA 262, Metal Producers, Inc., your memorandum dated May 17, 1951

Herewith are copies of comments by the U. S. Geological Survey and Bureau of Mines examiners regarding reconciliation of inferred reserve estimates and comments by the Chief, Mining Division, Region IV, Bureau of Mines. Since differences of opinion have not been reconciled, the arguments submitted by each are presented for your consideration.

The Summary, Conclusions and Recommendations have been revised to include the views of both examining agencies and should replace copies originally submitted.

with final inv. Dist. 13 copy

F. T. Allsman, Alternate

A. H. Kosehmann

Attachments

FTA/cl
copy to DMA files, Kosehmann, Allsman, Roberts, Kimmerley and Wilson

Chron
262

Mining Division
Region IV

May 22, 1951

Memorandum

To: DMA FieldTeam, Region IV

From: Chief, Mining Division

Subject: DMA 262, Metals Producers, Inc., Hornsilver mine, Beaver county, Utah. Memorandum of Coordinating Committee, May 17.

First, I agree with the Committee that my reasoning for reversing the investigators should have been presented. Before going into that, it should be pointed out that the "discrepancies" in the inferred reserves probably are very small when both tonnage and grade are considered, that is, 93,000 tons at 12.4 percent zinc against 189,000 at 10 percent zinc. Visual inspection of the tonnage and grade in various blocks in each estimate indicates tonnages would be about the same if either estimate was changed to correspond to the other in grade. Therefore, resubmission of the report to the investigators for reconciliation of the "differences" does not appear justifiable.

Whether or not the exploration should be approved or disapproved depends first upon policy. Because of the fact that early applications were considered as direct loans, the investigators have been inclined to be ultra conservative. Since the exploration program became established and because of the participation by the operator, I believe the attitude should be changed and that we should be optomistic, liberal and take a long-range viewpoint. Judging from correspondence from Washington dealing with numerous other applications, it appears that this is the Washington viewpoint.

There is reason to believe that there are substantial reserves of low grade - 10 to 15 percent plus - zinc in numerous areas of the west. No one has been interested in developing them because of the lack of a process and no one has been interested too much in developing a process because so little is known about the tonnages, grade and physical characteristics. I believe solution of the problem should start with establishing the reserves and since the Horn-silver mine contains potentially a large reserve, it would seem wise to encourage exploration there. Sufficient reserves will establish an incentive to work out the metallurgy and there is no reason to believe a more favorabe price-cost relation will not result when zinc becomes tighter.

Admittedly this is looking into the future, but why not?

P. T. Allman

Attachment

Mining Division
Region IV

May 22, 1951

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division

Subject: DMA 262, Metals Producers, Inc., Hornsilver mine, Beaver county, Utah. Memorandum of Coordinating Committee, May 17.

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There is reason to believe that there are substantial reserves of low grade - 10 to 15 percent plus - zinc in numerous areas of the west. No one has been interested in developing them because of the lack of a process and no one has been interested too much in developing a process because so little is known about the tonnages, grade and physical characteristics. I believe solution of the problem should start with establishing the reserves and since the Hornsilver mine contains potentially a large reserve, it would seem wise to encourage exploration there. Sufficient reserves will establish an incentive to work out the metallurgy and there is no reason to believe a more favorable price-cost relation will not result when zinc becomes tighter.

Admittedly this is looking into the future, but why not?

P. T. Allsman

Attachment

Mining Division
Region IV

May 22, 1951

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division

Subject: DMA 262, Metals Producers, Inc., Hornsilver mine, Beaver county, Utah. Memorandum of Coordinating Committee, May 17, 1951.

First, I agree with the Committee that my reasoning for reserving the investigators should have been presented. Before going into that, it should be pointed out that the "discrepancies" in the inferred reserves probably are very small when both tonnage and grade are considered, that is, 93,000 tons at 12.4 percent zinc against 189,000 at 10 percent zinc. Visual inspection of the tonnage and grade in various blocks in each estimate indicates tonnages would be about the same if either estimate was changed to correspond to the other in grade. Therefore, resubmission of the report to the investigators for reconciliation of the "differences" does not appear justifiable.

Whether or not the exploration should be approved or disapproved depends first upon policy. Because of the fact that early applications were considered as direct loans, the investigators have been inclined to be ultra conservative. Since the exploration program became established and because of the participation by the operator, I believe the attitude should be changed and that we should be optomistic, liberal and take a long-range viewpoint. Judging from correspondence from Washington dealing with numerous other applications, it appears that this is the Washington viewpoint.

There is reason to believe that there are substantial reserves of low grade - 10 to 15 percent plus - zinc in numerous areas of the west. No one has been interested in developing them because of the lack of a process and no one has been interested too much in developing a process because so little is known about the tonnages, grade and physical characteristics. I believe solution of the problem should start with establishing the reserves and since the Hornsilver mine contains potentially a large reserve, it would seem wise to encourage exploration there. Sufficient reserves will establish an incentive to work out the metallurgy and there is no reason to believe a more favorable price-cost relation will not result when zinc becomes tighter.

Admittedly this is looking into the future, but why not?

Kuchman

P. T. Allsman

Attachment
2 copies to Coordinating Committee

DMA

May 28, 1951

Memorandum

To: S. R. Wilson
(Through Chief, Mining Division)

Ralph Roberts

From: DMA Field Team, Region IV

Subject: DMA Docket 362, Metals Producers, Inc., Horsesilver mine, Beaver county, Utah

We are attaching a memorandum from the Land-Zinc Branch, dated May 9, addressed to the Coordinating Committee, and a letter, dated May 17, from the Coordinating Committee to the DMA Field Team, Region IV. We also attach a letter from P. T. Allsman to the Field Team relative to this docket.

You will note the tremendous difference in the estimated ore reserves of the Geological Survey and the Bureau of Mines.

We are sending this correspondence to you with the request that the engineer and geologist reconcile the difference of 93,000 and 149,000 tons. There must be some reason for the diversity of opinion regarding the tonnage. In our opinion, the grade of the ore does not enter into this since it is the cubical content of the vein that we are referring to.

Please read the attached file of correspondence and if it is possible for the geologist and engineer to reconcile their estimates of ore reserves, please do so in a letter that is signed jointly. If you cannot reconcile your estimate of ore reserves, please state the reason why the difference cannot be resolved.

cc-Allsman
Koschmann
JHE/el

J. H. East, Jr.

A. H. Koschmann

Dmc

Moon

May 10, 1951

Re: Docket DMA-262

Mr. George W. Clemson, President
Metal Producers, Incorporated
Milford, Utah

Dear Mr. Clemson:

In reply to your letter of May 2, 1951, relative to your application (DMA-262) for an exploration loan:

If your application is approved, final negotiations of the contract will be handled by the Washington office. You will be informed by a letter from a representative of the Production Expansion Division, Defense Minerals Administration.

If I can be of further service to you, please feel free to call upon me.

Very truly yours,

Otto Herres

Otto Herres, Chief
Lead-Zinc Branch

ALBrokaw:emp
G 5/10/51
Copies to: J. H. East, Jr.
Region IV (2)
Chief, Lead-Zinc Br.
R. T. McKnight 4204 GSA
L. B. Moon
R. K. Mote
L. F. Strobel
T. Lyon
Files

Directors reading file 4215 GSA
Br. reading file 4214 GSA

April 24, 1951

Mr. George W. Clemson, President
Metal Producers, Inc.
Milford, Utah

DMA-262 Horn Silver Mine
Milford, Utah

Dear Mr. Clemson:

Your letter of April 18 to Mr. Landon F. Strobel has been referred to me for reply.

In accordance with your request I am pleased to enclose forms and information concerning the exploration program of DMA.

With reference to the exploration work that you are carrying on at the present time, your attention is directed to Sec. 13d of the regulations which states that no work performed or costs incurred before the date of the contract shall be allowed as costs of a project in which the Government will participate.

In case I can be of further assistance, kindly let me know.

Yours very truly,

Otto Herres

OTTO HERRES, Chief
Lead-Zinc Branch

Enclosure

OHERRES:ks

cc: Mr. Strobel
Mr. Moen
2 copies to Mr. J. H. East, Jr. Region IV
Mr. Mote
Mr. McKnight
Mr. Herres
Files

Mining Division
Region IV

April 25, 1951

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division

Subject: DMA Project 2.2, Metal Producers, Inc., Wernsilver mine, Beaver county, Utah

The engineering, geological and metallurgical reports on the above application have been reviewed. It is noted that the reserves are inadequate and grade of mine too low for economic mining; that a metallurgical process to treat the oxidized ore has not been worked out; and no adequate outlet for a potential mine oxide concentrate is available. It is also noted that the proposed work is exploration, for which a direct loan would not apply.

In spite of the drawbacks noted, it is my opinion that any encouragement that can be given to the operators that may promote discovery of additional ore reserves and solve the problems of mining and treatment is a worthwhile undertaking. It is therefore recommended that the Defense Minerals Administration enter into a contract with the operators on a matching fund basis to accomplish the proposed exploration.

F. T. Allsman

Attachments

6-303
(March 1947)

cc: P. T. Allsman
S. R. Wilson

DMA file only

W. H. K.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

No. 3

Salt Lake City, Utah

Report to Mr. ~~Herbert F. Buchholtz~~

Chemical Laboratory Report

Date received ~~Mar. 8, 1951~~

Date reported Mar. 12, 1951

Serial No.	DESCRIPTION	Lot No.	Au	Ag	Pb	Zn
	Horn Silver Mine Beaver County, Utah					
94839	820 level 61/10	H.S. 3	<.005	<0.1	<.1	6.15
94840	800 " 60/12	4	<.005	0.1	<.1	2.5
41	800 " 58/12	5	<.005	0.1	<.1	23.5
42	1000 " 74/6	6	<.005	0.3	<.1	3.05
43	1000 " 77/10	7	<.005	0.3	0.4	5.0
44	1000 " 70/45	8	<.005	0.1	2.1	15.0

Mining Division
Date Rec'd.
MAR 14 1951
BUREAU OF MINES
Denver, Colorado

262

U. S. GOVERNMENT PRINTING OFFICE 16—33553-3

Signed H. E. Peterson

Mining Division
Region IV

February 27, 1951

Memorandum

To: S. R. Wilson

From: Chief, Mining Division, Region IV

Subject: Docket DMA 262, Metal Producers, Horn Silver Mine, Bever County, Utah

Herewith attached is the Blaance Sheet for the Horn Silver mine. This is to be attached to the original application.

P. T. Allsman

Attachment

cc-Allsman
DMA files

PT/cl

February 20, 1951

Memorandum

To: P. T. Allsman, Chief, Mining Division

From: Field Team, DMA, Region IV

Subject: Docket DMA 262, Metal Producers, Horn Silver Mine

We are attaching the Balance Sheet for the Horn Silver Mine, DMA Docket 262, which was forwarded to you by the Field Team on February 9. Please attach this to the original application.

J. H. East, Jr.

A. H. Koschmann

JHE/cl

~~Attachment:~~ Allsman (original and one)
DMA files

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

DMA file attached

February 8, 1951

REGIONAL DIRECTOR'S OFFICE REGION IV FEB 15 1951 BUREAU OF MINES DENVER, COLORADO

Memorandum

To: Executive Officer of Field Team, Region IV

From: Lead-Zinc Branch, DMA

Subject: Docket DMA-262
Metal Producers
Horn Silver Mine
Milford, Utah

The original application was referred to the field for review. This supporting data should be made a part of the original application.

Otto Herres

OTTO HERRES, Chief
Lead-Zinc Branch, DMA

Approved:
DMA Operating Committee

C O Mattendorf
Acting Chairman

J. H. Hedges
J. H. Hedges

Olaf N. Rove
Olaf N. Rove

Date

METAL PRODUCERS, INC.

BALANCE SHEET

AS AT DECEMBER 15, 1950.

ASSETS

CURRENT		
Cash	$1,930.14	
Service Deposits	2,300.00	
Supplies, Mine and Mill	7,023.48	
Accounts Receivable	600.00	11,853.62
REAL ESTATE		
Mill Site		400.00
DEPRECIABLE ASSETS		
(a) Auto Equipment	31,421.03	
(b) Buildings, ore bins, etc., mine location	24,065.70	
(c) Buildings, etc., mill location	73,369.59	
(d) Machinery and Equipment, mine location	49,633.51	
(e) Machinery and Equipment, mill location	88,934.36	
	267,424.19	
Less: Reserve for Depreciation	80,296.86	187,127.33
DEPLETABLE ASSETS		
Mine Development Costs, 1944 to 1949, incl.	269,317.26	
Less: Reserve for Depletion	174,940.61	94,376.65
MISCELLANEOUS ASSETS		
Organization Expense		900.00
MINE LEASEHOLD		
Leasehold Rights - 20-yr. Operating Lease, 5/15/47 to 5/15/67, incl., Horn Silver Lead Mining Company, Lessors		825,000.00
TOTAL		$1,119,657.60

2 - Cont'd

Metal Producers, Inc.

LIABILITIES

NOTES PAYABLE-CURRENT		
A. Otis Birch	$15,000.00	
Birch Ranch & Oil Co.	4,127.33	
George W. Clemson	3,212.31	
D. C. Peacock	1,000.00	23,339.64
ACCOUNTS PAYABLE-CURRENT		
Sundry Accounts	6,199.75	
Contract Purchases, (Pacific Bridge Co. for balance on Ball Mill)	3,666.68	9,866.43
CONTINGENT LIABILITIES		
*A. Otis Birch	53,425.87	
*Lula M. Minter	4,602.89	58,028.76
(*Payable out of ore mined and sold)		
TOTAL		91,234.83
CAPITAL		
Preferred Stock	912,000.00	
Common Stock	100,000.00	1,012,000.00
SURPLUS		16,422.77
TOTAL		$1,119,657.60

February 8, 1951

Memorandum

To: Executive Officer of Field Team, Region IV

From: Lead-Zinc Branch, DMA

Subject: Docket DMA-262
Metal Producers
Horn Silver Mine
Milford, Utah

The original application was referred to the field for review. This supporting data should be made a part of the original application.

OTTO MARRAS, Chief
Lead-Zinc Branch, DMA

Approved:
DMA Operating Committee

_____
Chairman

_____
J. H. Hedges

_____
Olaf N. Rove

copy to: Chief, Lead-Zinc Branch
Geological Survey - McKnight
J. H. Hedges
R. H. Note
2 copies to Executive Officer,
Regional Field Team, Region IV
Strobel
Mittendorf
Files

ALBrokaw:jeh
G-2/8/51

February 8, 1951

Memorandum

To: Executive Officer of Field Team, Region IV

From: Lead-Zinc Branch, DMA

Subject: Docket DMA-262
Metal Producers
Horn Silver Mine
Milford, Utah

The original application was referred to the field for review. This supporting data should be made a part of the original application.

OTTO MARKAW, Chief
Lead-Zinc Branch, DMA

Approved:
DMA Operating Committee

_____
Chairman

_____
J. H. Wedges

_____
Olaf N. Rove

AL:Brokaw:jch
G-2/8/51

copy to: Chief, Lead-Zinc Branch
Geological Survey - McKnight
J. H. Wedges
R. H. Fote
2 copies to Executive Officer,
Regional Field Team, Region IV
Strobel
Mittendorf
Files

February 13, 1951

Memorandum

To: S. R. Zimmerley, Salt Lake City

From: Regional Director, Region IV

Subject: Docket DMA 262, Metal Producers, Inc., Horn Silver Mine, Beaver County, Utah

The above company has made application for a loan to get their 400-ton a day mine into operation. Approval of the loan will depend upon ore reserves and whether the physical characteristics of the ore will permit it to be milled in the present mill. Therefore, I am requesting that you cooperate with S. R. Wilson and Ralph Roberts in making a thorough investigation of the metallurgical features involved.

Mr. Allsman is sending the application and brochure concerning the loan to S. R. Wilson, where you can familiarize yourself with it.

J. H. East, Jr. by W. O. Mullen
J. H. East, Jr.

FHA/el
cc-
Allsman
DMA files

Zr. G. & W.

February 13, 1951

Memorandum

To: S. R. Wilson, Salt Lake City

From: Chief, Mining Division

Subject: Docket DMA 262, Metals Producers, Inc., Mars Silver Mine, Beaver County, Utah

Herewith is an application for a loan and supporting brochure of the above company's mine and mill. The DMA Team, Region IV, has requested that we cooperate with the Metallurgical Division and the Geological Survey in making an investigation and preparing recommendations on the proposal.

Somewhere in your files is a complete set of original maps of the mine, which may be of some use.

We expect to get approval of the appointment of Leland Walker and Joe Beeson any day now and I believe this job may be a good place to use one of them, probably Beeson, as a consultant.

P. T. Allsman

PTA/al
cc-
Allsman
DMA files

220 G 21

February 9, 1951

Memorandum

To: R. T. Allsman, Chief, Mining Division, Denver

Ralph Roberts, USGS, Salt Lake City

From: Field Team, DMA, Region IV

Subject: Docket DMA 262, Metal Producers, Inc.

We are attaching an application of Metal Producers, Inc., the Horn Silver Mine, near Milford, Utah, together with a copy of the letter from the Operating Committee.

You will note that the application is in the amount of $415,000, for development, equipment, and operating capital necessary to put the mine and mill in operation at the rate of 400 tons per day.

Please make the necessary investigation and submit a report as soon as possible. We are sending the brochure to Mr. Allsman, with the request that he arrange with Mr. Roberts to see the report and make the necessary investigation.

J. H. East, Jr.

J. H. East, Jr.

A. H. Koschmann

A. H. Koschmann

Copies to -
Allsman (2)
Roberts
Koschmann
DMA files

jma/cl

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

January 31, 1951

REGIONAL DIRECTOR'S OFFICE
REGION IV
FEB 9 - 1951
BUREAU OF MINES
DENVER, COLORADO

Memorandum

To: Executive Officer of Field Team, Region IV

From: Lead-Zinc Branch

Subject: Docket DMA 262
Metal Producers, Inc.
Horn Silver Mines
Milford, Utah

This application is submitted to the field team for review for reasons suggested by the Operating Committee. Copy of memorandum attached.

E. T. McKnight
for OTTO HERRES, Chief
Lead-Zinc Branch, DMA

Approved:
DMA Operating Committee

C. Mitteudorf
Acting Chairman

J. H. Hedges
J. H. Hedges

Olaf N. Rove
Olaf N. Rove

January 31, 1951

Mr. George E. Gleason, President
Metal Producers, Inc.
1025 Security Building
510 South Spring Street
Los Angeles 13, California

Dear Mr. Gleason:

Your application (Docket LMA 262) for a Government loan under the provisions of the Defense Production Act of 1950 has been reviewed by the Lead-Zinc Branch of the Defense Minerals Administration. Before final decision can be taken on your request it will be necessary to obtain additional information on your property. Your application, therefore, has been referred to the appropriate field office with the request that the needed information be supplied to us.

Yours very truly,

S. H. WILLISTON

S. H. Williston, Director
Supply Division
Defense Minerals Administration

ALLEROKAW:jeh
C-1/31/51

copy to: Chief, Lead-Zinc Branch
Geological Survey - McKnight
J. E. Hodges
R. E. Mote
2 copies to Executive Officer,
Regional Field Team, Region IV
Strobel
Rittendorf
Files

Form 6-98

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

U. S. GOVERNMENT PRINTING OFFICE 16—53493-2