DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 274

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

EXPLORATION LOAN

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip

To:	SUPPLY DIVISION	Date	10/30/51 OCT 31 1951
To:	~~REPORTS AND RECORDS~~	Date	
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DO NOT DETACH

CONTROLLED DOCUMENT

DMA Form 2

DEFENSE MINERALS ADMINISTRATION
Status Change Notice

DMA Docket No. 274 X

To: Reports and Records Branch The Broadwater Zinc & Lead

LEAD ZINC BRANCH

From: _____

Date: 1 JUL 1951

The following action has been taken this date on the above Controlled Document.

Forwarded to _____

Type of request changed to:

_____

Denied ☐ Withdrawn ☐

Approved in amount of $ _____

Other action, specify:

On hold for information from applicant

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

NOV 1 1951

Re: Docket DMA-274
P.M. Mosier, Manager
Broadwater Zinc & Lead
Townsend, Montana
Iron Mask Claim,
Broadwater County, Mont.
Exploration loan, $54,240
Zinc, lead

Memorandum

To: Reports and Records Unit
Administrative Management Div.

From: Lead-Zinc Branch

Subject: Recommendation for denial of exploration loan

The applicant, P. M. Mosier, Manager of the Broadwater Zinc and Lead Company, Townsend, Montana, requested a loan of $55,000 to be used for development and operation of the Iron Mask mine and for rehabilitation of a mill.

From the information supplied by the applicant there appeared to be about 20,000 tons of indicated ore averaging 7% to 8½% Zn, 4% to 5% Pb, and about 3 oz. Ag per ton. The applicant believed that 50,000 tons of ore of similar grade could be developed.

On February 21, 1951, the application was referred to the field team. Investigation of the property by the examining team revealed that the mine was inaccessible because of caving at the portal and that the blocks of ore on which the application was based were under water and could not be examined.

Study of the longitudinal section of the mine indicated that about 500 tons of zinc-lead ore are available above the 100 ft. level and that downward exploration of the northern and southern ore shoots, and possibly of the area between them, would be necessary to increase the reserves. The field team therefore recommended that an exploration loan be considered if the applicant were willing to provide his share of the cost and that the application be denied if he was not able or willing to do so.

Subsequently, Mr. Mosier submitted Forms MF-100 and MF-103 requesting an exploration loan, the total cost of the project being $54,240. The applicant stated, however, that he had no money to invest in the project, but was attempting to raise the necessary capital.

A letter was sent to the applicant on or about July 5, 1951 requesting him to advise the Defense Minerals Administration as to

whether he would be able to contribute his share of the cost. No direct reply was received, but in a letter dated October 19, 1951, to Mr. Jesse Larson the applicant requested a cash advance against future production.

In view of this, it is apparent that the applicant is unable to match funds and the Lead-Zinc Branch therefore recommends that the application be denied.

The following material is attached:

Letter of October 18, 1950 from applicant
" " November 22, 1950 " " with maps.
" " " 30, 1950 " "
" " January 6, 1951 " "
Referral memorandum to field team, Feb. 2, 1951
Letter of March 9, 1951 from M. R. Klepper to applicant
" " " 10, 1951 " applicant
Report from field team as memorandum dated March 29, 1951.
Letter of April 21, from applicant
3 Forms MF-100
3 " MF-103

G. E. Johnson, Acting Chief
Lead-Zinc Branch

Approved:

Director, Supply Division

FILE COPY
SURNAME:

350

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

NOV 1 1951

Lyons (ETM)
McKnight
Bishop

Re: Docket DMA-274

G, E, C,

Mr. P. M. Mosier, Manager
Broadwater Zinc and Lead
Box 59
Townsend, Montana

Dear Mr. Mosier:

Under date of July 6, 1951 a letter was sent you requesting information regarding your willingness and ability to participate, on a matching basis, in an exploration project on the Iron Mask mine and also requesting copies of the lease and subordination agreement.

As we have had no reply we must assume that you cannot furnish the necessary funds to cover your share of the cost of the project. We regret, therefore, that your application must be denied.

We wish to thank you for bringing this property to our attention.

Very truly yours,

Tom Lyon

87 19/1

Tom Lyon, Director
Supply Division

EJLyons:emp
G 10-30-51
Copies to: A. E. Weissenborn Region II (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. M. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 GSA
Administrators r. files
DMA docket files

FILE COPY
SURNAME:

350

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

Lyons (Ettle)
McKnight
Johnson
Bishop

A.E.C.

Memorandum

OCT 31 1951

To: Mr. Julian Feiss

From: Mr. Tom Lyon

Subject: Application (DMA-274) submitted by Broadwater Zinc and Lead Company Townsend, Montana

P. M. Mosier submitted an application on behalf of the Broadwater Zinc and Lead Company of Townsend, Montana, November 22, 1950. The application, which was in the form of a letter, requested a loan of $55,000 to develop the Iron Mask property in Broadwater County, Montana. The monies were to be used as follows:

Mine development and operation.....	$ 28,860
Rehabilitation of mill.....	11,530
Miscellaneous as overhead, insurance, etc...	14,540

According to information accompanying the application, the property contained about 20,000 tons of indicated ore averaging 7% to 8.5% Zn, 4% to 5% Pb, and 3 oz. of Ag per ton. The applicant believes it possible to develop 50,000 tons of ore of similar grade.

On February 21, 1951, the application was referred to the DMA field team. The report of the examining team stated that the portal to the mine workings was caved and that the ore blocks on which the application was based were flooded. It was the opinion of the examining team, based on study of the longitudinal section of the mine, that about 500 tons of zinc-lead ore remained above the 100 ft. level, and that any increase in reserves would depend upon future downward exploration work in the northern and southern ore shoots, and possibly in the area between these two ore shoots.

The field team recommended that an exploration loan be granted if the applicant was willing to contribute his share of the cost and that if he was not able to do so, that the application be denied.

Subsequently the applicant submitted Forms DF-100 and DF-103 applying for an exploration loan of $54,240. However, it was stated in the application that the applicant had no money available to invest in the project, but that he was trying to raise the necessary capital.

On or about July 5, 1951 a letter was sent to the applicant requesting him to inform us if he were able to contribute his share of the cost of the project. In view of the letter of October 19, 1951 to Mr. Jesse Larsen requesting a cash advance, it is apparent that the applicant cannot contribute his share. The Lead-Zinc Branch, therefore, will recommend that the application for exploration assistance be denied.

We are returning Mr. Mosier's letter of October 19.

Tom Lyon

Tom Lyon, Director
Supply Division

Attachment

EJLyons:emp
G 10-29-51
Copies to: A. E. Weissenborn Region II (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. M. Bishop
Tom Lyon
Directors r. files 4214 GSA
Br. r. files 4214 GSA
Administrators r. files
DMA docket files

not stripped in RFR.

FILE COPY
SURNAME:

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

Lyons (ETM)
McKnight
Brown
Bishop

Re: Docket DMA-274
P.M. Mosier, Manager
Broadwater Zinc & Lead
Townsend, Montana
Iron Mask Claim,
Broadwater County, Mont.
Exploration loan, $54,240
Zinc, lead

a.e.c.

Memorandum

To: Reports and Records Unit
Administrative Management Div.

From: Lead-Zinc Branch

Subject: Recommendation for denial of exploration loan

The applicant, P. M. Mosier, Manager of the Broadwater Zinc and Lead Company, Townsend, Montana, requested a loan of $55,000 to be used for development and operation of the Iron Mask mine and for rehabilitation of a mill.

From the information supplied by the applicant there appeared to be about 20,000 tons of indicated ore averaging 7% to 8½% Zn, 4% to 5% Pb, and about 3 oz. Ag per ton. The applicant believed that 50,000 tons of ore of similar grade could be developed.

On February 21, 1951, the application was referred to the field team. Investigation of the property by the examining team revealed that the mine was inaccessible because of caving at the portal and that the blocks of ore on which the application was based were under water and could not be examined.

Study of the longitudinal section of the mine indicated that about 500 tons of zinc-lead ore are available above the 100 ft. level and that downward exploration of the northern and southern ore shoots, and possibly of the area between them, would be necessary to increase the reserves. The field team therefore recommended that an exploration loan be considered if the applicant were willing to provide his share of the cost and that the application be denied if he was not able or willing to do so.

Subsequently, Mr. Mosier submitted Forms MF-100 and MF-103 requesting an exploration loan, the total cost of the project being $54,240. The applicant stated, however, that he had no money to invest in the project, but was attempting to raise the necessary capital.

A letter was sent to the applicant on or about July 5, 1951 requesting him to advise the Defense Minerals Administration as to

whether he would be able to contribute his share of the cost. No direct reply was received, but in a letter dated October 19, 1951, to Mr. Jesse Larson the applicant requested a cash advance against future production.

In view of this, it is apparent that the applicant is unable to match funds and the Lead-Zinc Branch therefore recommends that the application be denied.

The following material is attached:

Letter of October 18, 1950 from applicant
" " November 22, 1950 " " with maps.
" " " 30, 1950 " "
" " January 6, 1951 " "
Referral memorandum to field team, Feb. 2, 1951
Letter of March 9, 1951 from E. R. Klepper to applicant
" " " 10, 1951 " applicant
Report from field team as memorandum dated March 29, 1951.
Letter of April 21, from applicant
3 Forms MF-100
3 " MF-103

G. E. Johnson, Acting Chief
Lead-Zinc Branch

Approved:

Tom Lyon

Director, Supply Division

EJLyons:emp
G 10-30-51
Copies to: A. E. Weissenborn Region II (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. M. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 GSA
Administrators r. files
DMA docket files

FILE COPY
SURNAME:

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

Rgnos (all 3)
Brokaw
McKnight
Mote
Arres

July 6, 1951

Re: Docket DMA-274

Mr. P. M. Tosier
The Broadwater Zinc and Lead Company
Townsend, Montana

Dear Mr. Tosier:

Your application for an exploration loan, submitted June 26, 1951 on Form MF-103, has been received.

We regret that no farther action can be taken on your application until you are able to furnish your share of the total cost of the project. Also, no application can be approved until we have received copies of the lease together with subordination agreements signed by the owner and by the mortgagor if there are any encumbrances, liens, etc., against the property. Such subordination agreements are to be submitted on Forms MF-201 and MF-202, copies of which have been sent to you.

We will hold your application until further notice from you.

Very truly yours,

Otto Herres

Otto Herres, Chief
Lead-Zinc Branch

EJLyons:emp
G 7/6/51
Copies to: A. E. Weissenborn Region II (2)
Chief, Lead-Zinc Branch
E. T. McKnight 4204 GSA
R. H. Mote
L. F. Strobel
Directors r. file 4214 GSA
Br. r. file 4214 GSA
Files

FILE COPY
SURNAME:

Brokaw (ETM)
McKnight
Herres

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

June 14, 1951

Re: Docket DMA-274

Mr. P. M. Mosier
Broadwater Zinc and Lead
Box 59
Townsend, Montana

Dear Mr. Mosier:

Your application (DMA-274) for an exploration loan has been reviewed by the Defense Minerals Administration. Before final action can be completed on your proposal it will be necessary that additional information be submitted in support of your application. We are enclosing 5 copies of Form MF-103 which should be completed by you. Four of the completed forms should be returned to Washington. The extra copy is for your files. These are the standard forms used for exploration projects. You should be specific in describing your project. Particular emphasis should be placed on type of work to be done, location of work in the mine and the itemized costs of the work.

If this information is submitted in sufficient detail it will be possible for the application to be processed in Washington. A prompt return of these forms will expedite the processing of your application.

Very truly yours,

Otto Herres, Chief
Lead-Zinc Branch

Enclosure
ALBrokaw:emp
6/13/51
Copies to: Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
R. H. Mote
L. F. Strobel
Directors r. file 4214 GSA
Br. r. file 4214 GSA
Files

FILE COPY
SURNAME:

Herres
McKnight

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

May 25, 1951

DMA 274
Iron Mask Property

Mr. R. W. Mosier, Manager
The Freedwater Zinc and Lead Company
Townsend, Montana

Dear Mr. Mosier:

I regret to learn from your letter of May 21 that unless some other form of assistance is available from matching funds for major mineral [illegible] that your property will be unable to produce zinc and lead.

With reference to your difficulty in obtaining a landlord's subordination agreement from the owners of the Iron Mask claim, I am enclosing two copies of a release dated May 10. This release explains the manner in which the DMA exploration program aids mining claim owners and may possibly prove of assistance to you with the Iron Mask people.

I am pleased to enclose a release giving questions and answers on the mineral exploration program which you may find of interest.

In case you are not able to obtain the landlord's subordination agreement and are willing to match funds forthe purpose of carrying out your project possibly if you will write us explaining in detail your problem with the owners, we may be able to find a way around the difficulty.

If I can be of further assistance to you in this connection, kindly let me know.

Yours very truly,

Otto Herres

OTTO HERRES, Chief
Lead-Zinc Branch

OHERRES:ks
Enclosures

cc: Strobel
Mote
Files
McKnight
Herres

May 23, 1951

Mosier

Mr. D. M. Mosier
Townsend, Montana

Dear Mr. Mosier:

This will acknowledge your letter dated April 23, 1951, relative to the marketing of your manganese ore.

No definite manganese program has, as yet, been approved and when it is, it will be widely publicized.

We are enclosing a copy of the specifications, together with instructions for submitting offers to the General Services Administration.

Very truly yours,

George B. Holderer
George B. Holderer
Acting Chief, Manganese Branch

Enclosure

TJHollard:mem

Adm. Reading File
Mr. Strobel
Mr. Bradley
Files

APR 12 1951

In reply please
refer to [illegible]

[illegible] Dodder

Lawrence E. Gerdes

Dear Mr. Dodder:

The report of your company, the [illegible] in Crosbyton County, Texas, has been released to the Land-Office Board by the Field Office of the Bureau of Mines.

A program which has recently been approved for a cooperative exploration of strategic materials calls for participation of the [illegible] applicants. [illegible] it will be necessary to [illegible] some [illegible] powered by [illegible] will be [illegible] long. If the results of the exploration is profitable, but it is [illegible] profitable. [illegible] to the plan, [illegible] rights [illegible] to all, and for reference, the [illegible] or [illegible] of the [illegible], drawings, and other pertinent information, are enclosed.

Study of the field report [illegible] rates of [illegible] exploration (Form [illegible]) for [illegible] the [illegible] and the production incentives that [illegible] your property may be [illegible] under this exploration program. [illegible] expenditures [illegible] will be [illegible] and [illegible] will be subject to a final determination by negotiation, [illegible] preliminary [illegible]. We believe that the plan will apply to all of your property other than that part relating to equipment for operating the mill.

[illegible] to our [illegible] with [illegible] of your application [illegible] your [illegible] to the [illegible] to carry out the [illegible] exploration [illegible] modification of your original [illegible] which we consider [illegible] and should be [illegible] the [illegible] clear to everyone.

Very truly yours,

[illegible] Hewes

[illegible]

Copies to: [illegible] Assistant [illegible]
[illegible]
[illegible], Land-Office Board
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] Files

Mr. Herres

Townsend, Mont.
May21, 1951.

Mr. Otto Herres, Chief
Lead -Zinc Branch, D.M.A.
Washinton, 25, D.C.

R.E.- D.M.A. 274- Broadwater Zinc and Lead

Dear Mr. Herres:

Unless some other method of assistance can be given to this organization than the matching fund idea, it appears that the production of Zinc and Lead from this operation cannot be effected .

The owners of the Iron Mask claim where theore is to be mined, will not sign any Landlords Subordination Agreement, in any case or circumstance.

The Broadwater Zinc and Lead are willing to place their entire equipment and property holdings(Mine) as a security for any loan made.

It seems to me that there should be some way for a property such as this that has worked successfully during the war period and that had to close because of metal price slumps induced by policies laid down by Govt. agencies, to be furnished with capital to finish up this operation and also to help the rearmament program.

If capital is supplied to foreign metal producers who cannot guarantee that there will not be an y seizure of such by the countries in which they are located, why should we potential metal producers in The United States who have no foreign holdings, be penalized by being paid less for our products than the foreign recipients of our capital are paid.

The Broadwater Zinc and Lead could do handsomely with a price guarantee equal to the foreign prices .

It is our desire that we get into operation. We have to do this or tear down our Mill and sell the equipment. If this is done I doubt if there will ever be any future production from the Iron Mask, as the cost of reestablishing this milling setup will be too great for the potential ore reserves.

If you can suggest any way in which this can be accomplished, we would be very glad to enter into the suggestion.

Yours very truly,

The Broadwater Zinc and Lead

By, P.M.Mosier, Mgr.

P. M. Mosier

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 24 1951
LANDON F. STROBEL
Executive Secretary

Townsend, Mont.
May21, 1951.

Mr. Otto Herres, Chief
Lead -Zinc Branch, D.M.A.
Washinton, 25, D.C.

R.E.- D.M.A. 274- Broadwater Zinc and Lead

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The Broadwater Zinc and Lead could do handsomely with a price guarantee equal to the foreign prices .

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If you can suggest any way in which this can be accomplished, we would be very glad to enter into the suggestion.

Yours very truly,

The Broadwater Zinc and Lead

By, P.M.Mosier, Mgr.

P. M. Mosier

May 1, 1951

Re: Permit [illegible]-274

Mr. F. E. Kosier
Broadwater Zinc and Lead
Townsend, Montana

Dear Mr. Kosier:

In reply to your letter of April 21:

In order that we may be able to process your application (P-[illegible]) more rapidly and the forms will be sent to you form P-1 B, which are sent to you with our letter of April 26, as soon as you have certainly completed the permit to the exploration program.

Very truly yours,

Otto Herres

[illegible], Chief
Lead-Zinc Branch

PJLyons:emp
5/1/51

Copies to: A. E. Weissenborn Region II (2)
Chief, Lead-Zinc Br.
R. E. McKnight
L. B. Moon
R. E. Moe
L. F. Strobel
T. Lyon
Files

~~LANDON F. STROBEL~~
Herres

Townsend, Mont.
April,2I, I95I.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 27 1951
LANDON F. STROBEL
Executive Secretary

Mr. Otto Herres,Chief
Lead Zinc-Branch,
D.M.A.
Washington 25, D.C.

Dear Mr. Herres:

Your letter of April I2, regarding the Iron Mask mine,D.M.A.-274, has been studied and we the owners have been actively engaged in investigating the possibilities in our matching the funds which D.M.A. will provide for developement.

It appears that we will be in a position in a couple of weeks to definitely provide our share of the fundsm and we very much would like to enter into the program, as we know that we have a setup that will develope a tonnage of ore that will provide a quantity of metals for the defense effort, and also be a financial success.

There will be few modifications of the originalproposal except that there will have to be an increase in the cost of sinking the winze, as the supply of labor which was available here for that purpose has faded away , and will have to be coaxed back by higher wages for that work than I originally estimated.

Our lease on the Iron Mask claim is being renewed also and until we have thatmcompletely signed up, we cannot go ahead.

If it is possible to further outline the work and go ahead with the application in the meantime we will be very glad to do so.

Very truly yours,

The Broad water Zinc and Lead

By , P. M. Mosier

P

BUREAU OF MINES
WASHINGTON, D.C

APR 26 3 16 AM '51

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

APR 12 1951

In reply please refer to DMA-274

Mr. P. M. Mosier

Townsend, Montana

Dear Mr. Mosier:

The report on your property, the Iron Mask mine in Broadwater County, Montana, has been submitted to the Lead-Zinc Branch by the field office of the Defense Minerals Administration.

A program which has recently been approved for encouragement of exploration of strategic materials calls for participation on the part of the applicant. For zinc and lead deposits it will be necessary to match Government funds on an equal basis. Funds advanced by the Government will be considered a loan, to be repaid if the exploration is profitable, but to be canceled if unsuccessful. The details of the plan, explaining the projects that will be eligible for assistance, the terms and schedules of financing, repayment, and other pertinent information, are enclosed.

Study of the field report together with a review of your application (DMA-274) for financial aid in bringing the Iron Mask mine into production indicates that part of your proposal may be considered under this exploration program. Details concerning expenditures that will be considered chargeable to exploration aid will be subject to a final determination by negotiation, but as a preliminary appraisal, we believe that the program will apply to all of your proposal other than that part relating to equipping and operating the mill.

Before we can proceed further with consideration of your application please indicate your willingness to provide your share of the funds needed to carry out the proposed exploration. Any modification of your original proposal that you may wish to make will be considered, but you should be specific concerning the work you wish to undertake.

EJLyons:emp G 4/4/51
Copies to: A. E. Weissenborn (2)
Region II
Chief, Lead-Zinc Branch
E. T. McKnight 4204 GSA
L. B. Moon
R. H. Mote
L. F. Strobel
C. O. Mittendorf Files

Enclosures

Very truly yours,

Otto Herres

OTTO HERRES, Chief
Lead-Zinc Branch

HARDSON F. STROMEL

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Return to DMEA, Rm. 4539

So. 157 Howard Street
Spokane 8, Washington

March 29, 1951

To: Otto Herres, Chief, Lead-Zinc Branch, DMA

Through: Operating Committee and
Director Supply Division

From: Executive Officer of Field Team, Region II

Broadwater County

Subject: Application of the Broadwater Zinc and Lead Company, Townsend, Montana. DMA Docket 274

A letter from your office, dated February 21, 1951 directed the DMA Field Team to conduct a geological examination of the Iron Mask mine, Broadwater Zinc and Lead Company, Townsend, Montana.

Mr. P. M. Mosier, who submitted the Broadwater Zinc and Lead application, was interviewed at his home in Townsend, Montana, by Thor Kiilsgaard and Wayne Roberts of the DMA Field Team on March 19, 1951. At that interview Mr. Mosier informed the field team members that the adit entry to the mine workings was caved, and that the ore blocks on which the application was based were flooded and could not be examined. Mr. Mosier stated that the company was not in favor of matching funds with the Government on an exploration program, and furthermore, that without a Government loan of some kind, the mine workings could not be made available for examination.

An examination of the longitudinal section of the Iron Mask mine shows that there is approximately 500 tons of zinc-lead ore remaining above the 100-foot level, which would be available for mining if the flooded workings were dewatered. Any other minable ore would depend upon future downward exploration work in the northern or southern ore shoots, and possibly in the intervening area between these two ore shoots. It is possible that several thousand tons of ore now inferred could be developed by sinking the No. 8 or North Winze 200 feet below the 100-foot level, as proposed by Mr. Mosier; however, such tonnage is merely suggestive as the workings cannot be examined.

The now flooded 100-foot level and stope above the level were mapped by Mr. Montis Klepper of the U. S. Geological Survey in 1949 and his field notes corroborate Mosier's description of the vein in those areas.

Mr. Mosier is reputedly an experienced and competent mine operator, and his suggestions as to future mine development should receive consideration.

BUREAU OF MINES
WASHINGTON, D. C.

APR 2 1 05 PM '51

It seems that an exploration contract would be advisable provided that Mr. Mosier would go along. For this reason, we would suggest that when the complete details of the forthcoming exploration program, as to possible rental paid by the Government on mining and milling equipment are announced, that Mr. Mosier be so informed, and at that time if he is still not interested that the Broadwater Zinc and Lead application be dropped from consideration.

We are returning herewith the data we have concerning the application of the Broadwater Zinc and Lead Company.

Thor Kiilsgaard
Thor Kiilsgaard
For: A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

Enclosures:

cc: Landon F. Strobel
Glenn C. Reed

C O P Y

So. 157 Howard Street
Spokane, 8, Washington

March 29, 1951

To: Otto Herres, Chief, Lead-Zinc Branch, DMA

Through: Operating Committee and
Director Supply Division

From: Executive Officer of Field Team, Region II

Subject: Application of the Broadwater Zinc and Lead Company, Townsend Montana. (Broadwater County). DMA Docket 274.

A letter from your office, dated February 21, 1951 directed the DMA Field Team to conduct a geological examination of the Iron Mask mine, Broadwater Zinc and Lead Company, Townsend, Montana.

Mr. P. M. Mosier, who submitted the Broadwater Zinc and Lead application, was interviewed at his home in Townsend, Montana, by Thor Kiilsgaard and Wayne Roberts of the DMA Field Team on March 19, 1951. At that interview Mr. Mosier informed the field team members that the adit entry to the mine workings was caved, and that the ore blocks on which the application was based were flooded and could not be examined. Mr. Mosier stated that the company was not in favor of matching funds with the Government on an exploration program, and furthermore, that without a Government loan of some kind, the mine workings could not be made available for examination.

An examination of the longitudinal section of the Iron Mask mine shows that there is approximately 500 tons of zinc-lead ore remaining above the 100-foot level, which would be available for mining if the flooded workings were dewatered. Any other minable ore would depend upon future downward exploration work in the northern or southern ore shoots, and possibly in the intervening area between these two ore shoots. It is possible that several thousand tons of ore now inferred could be developed by sinking the No. 8 or North Winze 200 feet below the 100-feet level, as proposed by Mr. Mosier; however, such tonnage is merely suggestive as the workings cannot be examined.

The now flooded 100-foot level and stope above the level were mapped by Mr. Montis Klepper of the U. S. Geological Survey in 1949 and his field notes corroborate Mosier's description of the vein in those areas.

Mr. Mosier is reputedly an experienced and competent mine operator, and his suggestions as to future mine development should receive consideration.

It seems that an exploration contract would be advisable provided that Mr. Mosier would go along. For this reason, we would suggest that when the complete details of the forthcoming exploration program, as to possible rental paid by the Government on mining and milling equipment are announced, that Mr. Mosier be so informed, and at that time if he is still not interested that the Broadwater Zinc and Lead application be dropped from consideration.

We are returning herewith the data we have concerning the application of the Broadwater Zinc and Lead Company.

Thor Kiilsgaard
For: A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

Enclosures:

cc: Landon F. Strobel
Glenn C. Reed

Townsend, Mont.
March 10,1951

Mr.Montis R. Klepper
U.S.G.S.
So.157 Howard St
Spokane 8,Wn.

Dear Mr. Klepper:

Referring to your letter of Mar.9, regarding a geological examination of the Iron Mask Mine, I can say that I am at present available to accompany any one trying to make this examination.

However the conditions at the Mine are the same as they were when I wrote up the application, that is there is a fall blocking the main tunnel at No. 4 chute, and it will have to be cleaned up and retimbering done before one can proceed any farther.

The winze is full of water and in my application I enclosed the cost of taking the power cable and the transformers and switches into the mine. As this winze and the all of the ore that is remaining for milling was and is below the tunnel level, and as the water level is the tunnel level it is my belief that any examination is impossible until the preliminary steps that I have outlined in my application are completed, including the installation of the hoist so that the pumps can be handled.

The road to the mine is now blocked with snow and will have to be plowed out, and outside of an examination of the mill records and sample records nothing can be seen that will further knowlege of the mine until the work and steps outlined in my application are finished.

It was to secure the funds necessary to do this work that the application was made.

Yours very truly,
P. M. Mosier
P.M.Mosier
Townsend, Mont.

Iron Mountain

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

No. 157 Howard Street
Spokane 8, Washington

March 8, 1951

Mr. B. . . Hosler
Townsend, Montana

Dear Mr. Hosler:

Your application for Government assistance under the Defense Production Act of 1950 has been referred to this office, with the specific request that a geological examination be made.

We would like to make this examination as promptly as possible. Will you, therefore, please advise us whether the Iron Mountain mine is now accessible and, if so, when it would be convenient for you to accompany us on an examination of the mine. We are particularly interested in that part of the mine in which the principal ore reserve is situated, including the mines workings from which it may be necessary to cut samples.

Very truly yours,

Lorris B. Hopper
For: A. L. Eisenbraun
Executive Officer, TVA
Field Team, Region III

rlc

FILE COPY
SURNAME:

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

Pacys
McKinney
Mills
Herres
Lyon

February 21, 1951

Memorandum A. E. Patterson Jr.

To: Executive Officer of Field Team, Region II
Through Operating Committee and Director,
Supply Division

From: Lead-Zinc Branch, DMA Re: Docket DMA-274

Subject: Application of
The Broadwater Zinc and Lead Company
Townsend, Montana

Commodity: Zinc, lead

The application for Government assistance submitted by P.M. Mosier in behalf of the Broadwater Zinc and Lead Company, Townsend, Montana, has been reviewed by the Lead-Zinc Branch, DMA.

The applicant requests a loan of $55,000.00 to develop and put in operation the mine and mill on the Iron Mask property which is located six miles north of Townsend, Montana, in Broadwater County. The $55,000.00 is to be used as follows:

Mine development and operation.....	$ 28,680.00
Rehabilitation of mill.....	11,580.00
Miscellaneous as overhead, insurance, etc....	14,450.00

From information accompanying the application there appears to be about 20,000 tons of indicated ore containing 7% to 8.5% Zn, 4% to 5% Pb, and about 3 oz. of Ag. per ton. The applicant believes it possible to develop 50,000 tons of ore of similar grade. The capacity of the mill is 50 tons per 24 hours.

The Lead-Zinc Branch, DMA recommends a geological examination of the property and an appraisal of the mining methods and costs.

The longitudinal section of the Iron Mask mine shows oxide ore in the upper levels. Because the U. S. Bureau of Mines is interested in obtaining information on oxidized zinc ore bodies, particularly carbonate, it is recommended that a geological examination be made of this part of the ore body also and a statement of tonnage, grade, minerals present, etc. be included with the report.

/s Otto Herres

OTTO HERRES, Chief
Lead-Zinc Branch
Defense Minerals Administration

Approved:
D.A Operating Committee

/s C. O. Mittendorf
Chairman

/s Jewell B. Moore
J. H. Hedges

/s Olaf N. Rove
Olaf N. Rove

EJLyons:emp
G-2-21-51

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

FILE COPY
SURNAME:

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

February 21, 1951

Re: Docket MMA-274

Referred to
A.E. Weissenborn
So. 157 Howard St.
Spokane 8, Washington

Mr. P. M. Mosier

Townsend, Montana

Dear Mr. Mosier:

Your application for Government assistance under the Defense Production Act of 1950 has been reviewed by the Lead-Zinc Branch of the Defense Minerals Administration and has been referred to the field for information and advice.

Very truly yours,

/s/
for S. M. Williston, Director
Supply Division
Defense Minerals Administration

E TMcKnight:emp
G-2/21/51
Copies to: Chief, Lead-Zinc Branch
Geological Survey - McKnight
J. H. Hedges
R. H. Mote
2 copies to Executive Officer,
Regional Field Team, Region II
Strobel
Mittendorf
Files

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

February 21, 1951

Memorandum

To: Executive Officer of Field Team, Region II
Through Operating Committee and Director,
Supply Division

From: Lead-Zinc Branch, DMA Re: Docket DMA-274

Subject: Application of The Broadwater Zinc and Lead Company Townsend, Montana Commodity: Zinc, lead

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Otto Herres

OTTO HERRES, Chief
Lead-Zinc Branch
Defense Minerals Administration

See p. 2

Approved:
DMA Operating Committee

C. Mittendorf
Acting Chairman

Lowell B. Moon
~~L. H. Hedges~~

Olaf N. Rove
Olaf N. Rove

FILE COPY
SURNAME:

Mots
Herres

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

January 22, 1951

Ref: DMA-274

Hon. James E. Murray

United States Senate

My dear Senator Murray:

In reply to your letter of January 9 with reference to the Broadwater Mine and Lead Company application for financial aid under the Defense Production Act:

Although applications for Government assistance under the Act are being assigned docket numbers numerically as received in the Washington office the policy of the Defense Minerals Administration commodity branches is to process the applications in order of the filing dates until such time as the backlog of applications filed in the field offices can be worked over. Mr. Foster's application is being reviewed now by the United States Geological Survey and you can assure him that it is receiving the full and prompt consideration of the Defense Minerals Administration.

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

Sincerely yours,

JAMES BOYD

Administrator

RHMOTE/ks

cc: R. H. Mote
Mr. McKnight
Mr. Herres
Files

DMA-274

Owner - 274

LANDON F. STROBEL
DMA-274

JOSEPH C. O'MAHONEY, WYO., CHAIRMAN
JAMES E. MURRAY, MONT.
SHERIDAN DOWNEY, CALIF.
ERNEST W. MC FARLAND, ARIZ.
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ZALES N. ECTON, MONT.
GEORGE W. MALONE, NEV.
ARTHUR V. WATKINS, UTAH
MILLS ASTIN, CHIEF CLERK

United States Senate

COMMITTEE ON
INTERIOR AND INSULAR AFFAIRS

January 9, 1951

answ'd 1/22/51
by RH Boyd

Dr. James Boyd, Administrator
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Dear Dr. Boyd:

I am writing you with reference to the Broadwater Zinc and Lead Company application for financial aid under the Defense program.

Although Mr. P. M. Mosier filed with your field office on November 2, 1950, according to the information given to me, the file did not reach Washington until January 3, 1951, and only now has been assigned a docket number (D.M.A.-274).

It seems to me that in such instances the case should be processed in order of its filing date rather than its docket number in all fairness to the applicant.

I am informed by the applicant, Mr. P. M. Mosier of Townsend, Montana, that this property is one of the few in Montana which can rapidly be put into production and I trust it will have your favorable consideration.

Sincerely yours,

James E. Murray

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 1-15-51

REFERRED TO:

1. Mr. Heuer
2.
3.
4.

FOR:

✓ Action
_____ Approval
_____ Comment
_____ Recommendation
_____ Reply for signature of _____
_____ Your information

REMARKS:

Check (X) before the items needing attention.

Steshell
Initials of sender.

Interior - Bureau of Mines, Pittsburgh, Pa.

BUREAU OF MINES
WASHINGTON, D.C.
JAN 10 3 56 PM '51

Mr. Herres

DMA - 274

lead zinc

Name of Applicants: The Broadwater Zinc and Lead
(P. M. Mosier)

Address of Applicants:

Name of Property:

Location of Property:

Nature of Application:

1/11/51 - Mr. Herres:
Attached is a letter from P. M. Mosier to The Defense Minerals Administration dated 1/6/51 with supplementary information on The Broadwater Zinc and Lead.

Action Dates

Applications:

Received:

Acknowledged:

Referred to _____ Committee:

DMA-274

LANDON F. STROBEL

Townsend, Mont.
Jan. 7, 1951

The Defense Minerals Administration
Washington, D.C.

Gentlemen:

To supplement the application for assistance in Mining by the Broadwater Zinc and Lead, I am herewith enclosing listing of the machinery and equipment owned by the Partnership, with replacement values.
As you can see we have a considerable quantity of machinery for sale this is all suitable for a 100 ton operation. Some of this equipment is at the Miller Machinery, yards at Missoula, who are selling the equipment on a commission basis.
As they can only sell this to small mines who are having a hard time financing their operations it is moving slowly.
We have considerable oustanding accounts that are awaiting our operation for collection. Due to our former success and the knowledge that we have complete equipment and good ore and I also think operating know how, they have been very leinent in waiting for their money.
I am compiling a complete list of these debts and will send them in in a separate listing.
A.E.Weissenborn, Executive Officer Field Team, Region II, asked me to send in the additional information which I am enclosing, as he said the application had been forwarded to Washington.
Payment can be made by a royalty taken from Smelter returns, either after or before the royalty of 10% is taken for the owners. Unless some sort of Bonus or price increase is allowed as in the past War for Zinc and Lead, it will have to be taken after the owners royalty.
Bonus payments paid as in the past War, helped the small mines who operated better than price increases as they were not subject to Royalty or to excess profit taxes.
I am already lining up two small properties who can furnish ore to supplement the ore of the Iron Mask claim, but can not go very far until financial assistance is given.

Yours very truly,

The Broadwater Zinc and Lead
By, P.M.Mosier- partner.
Townsend, Mont.
P. M. Mosier

BUREAU OF MINES
WASHINGTON, D.C.
JAN 10 7 38 AM '51

Machinery and equipment of the Broadwater Zinc and Lead
At the IRON Mask Mine and Mill.

	Cost
8- Stopers,4Thor,4 Cleveland	$ 2800.00
3-Stopers Heavy, need some parts,2 G.D.,I Cleveland	900.00
4-Air Hoses	100.00
4-Water Hoses	100.00
I- G.D.330Cu.Ft.Water Cooled Compressor, driven by 75 H.P.G.E.440 Volt,vee belt Motor, with switch and starting compensator	3000.00
I- 4x8 receiver	200.00
8- Mine Cars	1000.00
2000- Ft. 2" Black Pipe, In Mine and outside	600.00
2000- Ft. I" Black Pipe " " "	300.00
2000- Ft. 3-3½" Flue Pipe " " "	500.00
1500-Ft. 16 -20Lb. Rail " "(Track length)	500.00
1000-Ft.12# track	350.00
1000-Ft. 8# "	100.00
I- 20 H.P.Electric Hoist with 20 H.P. West. Motor 440 Volts , Switch , contoller and cable capavity I ton , 400 Feet/	900.00
2700 -Ft. No. 10 wire, 3 Cond.2300 Voltcable,from outside transformers to transformers in mine .On Reel	1200.00
300 - Ft. cable as above on reel	150.00
2- 30 K.V.A transformers 2300-440Volt.Used in Mine	800.00
2- 37½ K.V.A. Transformers.440-2300Volt Used outside	800.00
2- Sets porcelain 50 Amp. circuit breakers	200.00
I- Set porcelain 100 Amp. circuit breakers	100.00
I- 200 Amp. G.E.Fused switch	200.00
I- 100 Amp. West. Fused switch	140.00
500# New No. 6 Copper Wire	200.00
1500# second hand copper wire	300.00
I- 25 H.P. 1½ HnR.V. Pump	600.00
I- 20 H.P. 1½ H.R.V. Pump needs repairs	300.00
I- 7½ H.P. Westinghouse single stage monobloc pump/	200.00
700- Ft. 3 Conductor 440 Volt Type S. No.2 Cable	500.00
200- Pieces Miscl Lengths,I" O.D.Steel,Timken and Eng.	800.00
3500- new and second hand Drill bits	800.00
I- Atlas Thermer 18" guage with philco battery and 440 Volt charging panel. New in 1948	5200.00
I- Ford dump truck 1947 Model Good tires and box	2000.00
I- Ford Panel truck, 1938	500.00
3- Air tuggers	700.00
I- Double drum slusher,Air	300.00
I- slushing bucket	100.00
I- 2 mile power line, Stubbed poes	2000.00
I- 300 Amp. 440 Volt, Electric welder	400.00
4- Line starters 15-25 H.P.	300.00
I- Lot small tools, Elec. supplies,Pipe supplies Etc	400.00
Total equipment at mine	$ 30540.00
10- Acres deeded land on which the mill sits	$ 3,000.00
6- Unpatented mining Claims covering tunnel and extensions of Iron Mask claim	7,300.00
Toatl value of claims	$10,300.00

Inventory of Equipment of Broadwater Zinc and Lead.

At Mill	Cost Value
I- 8xI8 crusher with 20H.P. A.C. Motor and starter	$ 500.00
I- shaker feeder and motor	50.00
I- belt feeder and motor	50.00
I- 4x4 Ball mill, 25 H.P. Motor with Vee belts, and starter, new liners	2500.00
I- 4 x I6 Dorr classifier with 3 H.P. motor	300.00
I- 6 x 8 conditioner with 5 H.P. motor Steel tank	300.00
I- Denver reagant feed for Aerofloat With II0 Volt Motor	75.00
I- 3 cell Sub A. No.I8 Flotation unit, Pb. Circuit	500.00
I- 3 cell Union Iron Wks. small Flotation Pb. circuit	400.00
I- 8 x 8 Conditioner, with 7½ H.P. motor and starter, Wood	400.00
I- Lime feeder with II0 Volt motor	75.00
2- 4 cell units, Sub. A. 36 x 36 on Zinc Circuit	I600.00
I- 6 Ft. Wilfley table	I50.00
2- Vacuum Pumps, with Motors and starters. Need recondit.	500.00
I- 8 x I6 Thickening tank with motor and DaiphragmPump Zn.	I200.00
I- 2 Disc, 6 Ft. Dinco filter, with Blower, motor and starter, only one Disc now on Filter	I000.00
I- 3 x 3 Pan Filter, used for Pb.	I00.00
4- Tanks for Pb. Concentrate	I00.00
I- Acetylene Generator	250.00
I- Lot Reagents and supplies.	500.00
4- Small extra motors	350.00
I- 50 H.P. extra Motor with 6 groove sheave and starter	400.00
I- 25 H.P. Extra motor with 6 groove sheave and starter	$ 250.00
I- Lot Miscl. tools, Elec. drills Pipe Etc.	500.00
I- Lot Assay equipment, Scales Furnace Hot Plates Etc.	I50.00
3- Ton Grinding Balls. Miscl. sizes	350.00
Total Mill equipment and supplies	$I2550.00
Mill Building and Structures at Mine and Mill	I0000.00
Total value Mill and Equipment	$ 22550.00
Total Value of Mine Equipment	30540.00
Total Value Equipment and structures	$ 53090.00
Total Value of Claims and deeded land	I0300.00
Value of Mine and Mill setup	$ 63390.00

The Value of Machinery owned for sale on separate sheet.

Machinery and Equipment of Groundwater Zinc and Lead.
Surplus and for sale or use at operation.

	At Keating Mine Cost Value	At Miller Mdy. Cost Value
I- Clark 440 Volt 200 Amp. Man. switch	$ 250.00	
520 Ft. 3 Cond. No.0, 440 Volt Elec. cable	520.00	
I- Heavy 2.5 Diam sheave wheel and bearings	100.00	
I- 5 Ft. Diam sheave wheel with bearings		$ 250.00
I- 34 x 10' Air Receiver	200.00	
I- Boarding House range Coal, 2 ovens. C.I.	400.00	
I- Ottawa Elec. Hoist, single drum, cut helical gears, reduction 15-1, 1200 Ft. new 3/4 rope on drum. Driven by 75 H.P. slip ring motor, with controller resistance and switch. Can use 150 H.P. motor on hoist.	6000.00	
I- Ingersol Rand Drill sharpener No. 7970, type IP-34	300.00	
I- Ingersol Rand jack bit grinder	250.00	
I- Nearly new I.R. Automatic drifter	625.00	
I- nearly new Ingersoll Automatic Drifter	625.00	
I- Cleveland Drifter Hand cranked 2½ In.	400.00	
I- Cleveland heavy stoper.	400.00	
I- Westinghouse 100 Amp. Circuit Breakers Foreslain	175.00	
I- Elevator 20" x 25 Ft. head and tail pulleys entire buckets driven by 7½ H.P. geared motor	600.00	
I- Kennedy Van Saun secondary crusher, 7"-3/4", with spare shaft and spare pulleys. 20 I.C.A.T. Motor	4000.-	4000.00
I- Allis Chalmers classifier, 4 x 14 Ft. No Motor but with switch and starter		100.00
I- Kennedy Van Saun Ball Mill 5 x 5 Vee belt drive 75 H.P. Int. Motor Synchronous due speed, with switches and controller, partially used liners	4000.00	
I- 6 Ball Mill Thompson Flot. Mach. 4-7 H.P. motors, blower, switches and spare parts. No motor on blower	2000.00	
I- Thickener, Low Head with Door Sole Pump complete with switches and motor Redwood tank 8 x 20	2000.00	
I- Montana Iron Works hot air furnace with black coal thermostatic control feeder	700.00	
I- Jeffrey Vibrating feeder complete with carriage and rheostat control		400.00
I- Belt Magnet with 4 H.P. Motor rectifier and Etc.		300.00
I- Fairbanks Morse 15 ton truck scale		200.00
I- 6 Ft. Willfley table A-1 shape and newly covered	400.00	
I- Heavy Lab crusher with 3 H.P. Motor and switch	~~250.00~~	250.00
I- Laboratory grinder with 3 H.P. " "		150.00
Misel. Blacks with tools Etc.	100.00	
Total Equipment 100 Tons Cap. for sale	$20005.00	$ 5850.00
	5850.00	
Total Value of 100 Ton Cap. Equipment for sale	$25850.00	

Townsend, Mont.
Jan.6, 1951

The Defense Minerals Administration
Washington, D.C.

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By, P.M.Mosier- partner.
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P. M. Mosier

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2700 -Ft. No. 10 wire, 3 Cond.2300 Voltcable,from outside transformers to transformers in mine .On Reel	1200.00
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2- 37½ K.V.A. Transformers.440-2300Volt Used outside	800.00
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I- belt feeder and motor	50.00
I- 4x4 Ball mill, 25 H.P. Motor with Vee belts, and starter, new liners	2500.00
I- 4 x 16 Dorr classifier with 3 H.P. motor	300.00
I- 6 x 8 conditioner with 5 H.P. motor Steel tank	300.00
I- Denver reagant feed for Aerofloat With 110 Volt Motor	75.00
I- 3 cell Sub A. No.18 Flotation unit,Pb. Circuit	500.00
I- 3 cell Union Iron Wks. small Flotation Pb. circuit	400.00
I- 8 x 8 Conditioner, with 7½ H.P. motor and starter,Wood	400.00
I- Lime feeder with 110 Volt motor	75.00
2- 4 cell units, Sub. A. 36 x 36 on Zinc Circuit	1600.00
I- 6 Ft. Wilfley table	150.00
2- Vacuum Pumps, with Motors and starters. Need recondit.	500.00
I- 8 x 16 Thickening tank with motor and DaiphragmPump Zn.	1200.00
I- 2 Disc, 6 Ft. Eimco filter, with Blower, motor and starter starter, only one Disc now on Filter	1000.00
I- 3 x 3 Pan Filter, used for Pb.	100.00
4- Tanks for Pb. Concentrate	100.00
I- Acetylene Generator	250.00
I- Lot Reagents and supplies.	500.00
4- Small extra motors	350.00
I- 50 H.P. extra Motor with 6 groove sheave and starter	400.00
I- 25 H.P. Extra motor with 6 groove sheave and starter	$ 250.00
I- Lot Miscl. tools, Elec. drills Pipe Etc.	500.00
I- Lot Assay equipment, Scales Furnace Hot Plates Etc.	150.00
3- Ton Grinding Balls. Miscl. sizes	350.00
Total Mill equipment and supplies	$12550.00
Mill Building and Structures at Mine and Mill	10000.00
Total value Mill and Equipment	$ 22550.00
Total Value of Mine Equipment	30540.00
Total Value Equipment and structures	$ 53090.00
Total Value of Claims and deeded land	10300.00
Value of Mine and Mill setup	$ 63390.00

The Value of Machinery owned for sale on separate sheet.

Machinery and Equipment of Broadwater Zinc and Lead.
Supplus and for sale or use at operation.

	At Keating Mine Cost Value	At Miller Mchy. Cost Value
I- Clark 440 Volt 200 Amp.Mag. switch	$ 250.00	
520 Ft. 3 Cond.No.0, 440 Volt Elec. cable	520.00	
I-Heavy 2.5 Diam sheave wheeland bearings	100.00	
I- 5 Ft. Diam sheave wheel with bearings		$ 250.00
I- 3½ x 10' Air Receiver	200.00	
I- Boarding House range Coal,2 ovens. C.M.	400.00	
I- Ottumwa Elec. Hoist,single drum,cut helical gears,reduction 15-1, 1200 Ft. new 3/4 rope on drum. Driven by 75 H.P. slip ring motor, with controller resistance and switch . Can use 150 H.P. motor on hoist.	6000.00	
I- Ingersol Rand Drill sharpenerNo.7870,typeIP-34	300.00	
I- Ingersol Rand jack bit grinder	250.00	
I- Nearly new G.D. Automatic drifter	625.00	
I- nearly new Ingersoll Automatic Drifter	625.00	
I- Cleveland Drifter Hand cranked 2½ In.	300.00	
I- Cleveland Heavy stoper,	400.00	
3- Westinghouse 100 Amp. Circuit Breakers Porcelain	135.00	
I- Elevator 12" x 25 Ft. head and tail pulleys extra buckets driven by 7½ H.P. geared motor	600.00	
I- Kennedy Van saun secondary crusher,3"-3/8, with spare shaft and spare mantles.20H.O.G.E.Motor	~~4000.~~	4000.00
I-Akins type classifier,4 x 14 Ft. No Motor but with switch and starter		300.00
I-Kennedy Van Saun Ball Mill 5 x 5 Vee Belt drive 35 H.P. West. Motor Syncronous Two speed, with switches and controller, partially used liners	4000.00	
I- 8 Cell Booth Thompson Flot. Mach. 4-3H.P. motorsBlower, switches and spare parts.No motor on blower	2000.00	
I- Thickener,Low Head with DoorCoPump complete with switches and motor RedwoodTank 8 x 20	2000.00	
I- Montana Iron Works hot air furnace with slack coal Thermostatic control feeder	700.00	
I- Jeffrey Vibrating feeder complete with Carriage and rheostat controll		400.00
I- Belt Magnet with G.E.Tunger rectifier and Etc.		300.00
I- Fairbanks Morse 15ton truck scale		200.00
I- 6 Ft. Wilfley table A-I shape and newlycovered	400.00	
I- Heavy Lab crusher with 3 H.P. Motor and switch	~~250.00~~	250.00
I- Laboratory Grinder with 3 H.P. " "		150.00
Misel. Blacksmith tools Etc.	100.00	
Toatl Equipment 100Tons Cap. for sale	$20005.00	$ 5850.00
	5850.00	
Total Value of 100 Ton Cap. Equipment for sale	$25850.00	

Townsend, Mont.
Jan.6, 1951

The Defense Minerals Administration
Washington, D.C.

Gentlemen:

To supplement the application for assistance in Mining by the Broadwater Zinc and Lead, I am herewith enclosing listing of the machinery and equipment owned by the Partnership, with replacement values.
As you can see we have a considerable quantity of machinery for sale This is all suitable for a 100 ton operation. Some of this equipment is at The Miller Machinery,yards at Missoula, who are selling the equipment on a commission basis.
As they can only sell this to small mines who are having a hard time financing their operations it is moving slowly.
We have considerable oustanding accounts that are awaiting our operation for collection. Due to our former success and the knowledge that we have complete equipment and good ore and I also think operating know how, they have been very leinent in waiting for their money.
I am compiling a complete list of these debts and will send them in in a separate listing.
A.J.Weissenborn, Executive Officer Field team, Region II, asked me to send in the additional information which I am enclosing, as he said the application had been forwarded to Washington.
Payment can be made by a royalty taken from smelter returns, either after or before the royalty of 10% is taken for the owners. Unless some sort of Bonus or price increase is allowed as in the past war for Zinc and Lead, it will have to be taken after the owners royalty.
Bonus payments paid as in the past war, helped the small mines who operated better than price increases as they were not subject to Royalt y or to excess profit taxes.
I am already linking up two small properties who can furnish ore to supplement the ore of the Iron Mask claim, but can not go very far until financial assistance is given.

Yours very truly,

The Broadwater Zinc and Lead
By, P.M.Mosier- partner.
Townsend, Mont.

P. M. Mosier

Machinery and equipment of the Broadwater Mine and Mill At the IRON Mask Mine and Mill.

	Cost
8- Stopers,4Thor,4 Cleveland	2800.00
3-Stopers Heavy, need some parts,2 I.R.,1 Cleveland	900.00
4-Air Hoses	100.00
4-Water Hoses	100.00
1- G.D.3300c.Ft. Water Cooled Compressor, driven by 75 H.P.G.E.440 Volt,vee belt Motor, with switch and starting compensator	3000.00
1- 4x8 receiver	200.00
8- Mine Cars	1000.00
2000- Ft. 2" Black Pipe, In Mine and outside	600.00
2000- Ft. 1" Black Pipe " " "	300.00
2000- Ft. 3-3½" Flue Pipe " " "	500.00
1500-Ft. 16 -20Lb. Rail " "(Track length)	500.00
1000-Ft.12# track	350.00
1000-Ft. 8# "	100.00
1- 20 H.P.Electric Hoist with 20 H.P. West. Motor 440 Volts , Switch , contoller and cable capacity 1 ton , 400 Feet	900.00
2700 -Ft. No. 10 wire, 3 Cond.2300 Voltcable,from outside transformers to transformers in mine .On Reel	1200.00
300 - Ft. cable as above on reel	150.00
2- 30 K.V.A transformers 2300-440Volt.Used in Mine	800.00
2- 37½ K.V.A. Transformers.440-2300Volt Used outside	800.00
2- Sets porcelain 50 Amp. circuit breakers	200.00
1- Set porcelain 100 Amp. circuit breakers	100.00
1- 200 Amp. G.E.fused switch	200.00
1- 100 Amp. West. fused switch	140.00
500# New No. 6 Copper Wire	200.00
1500# second hand copper wire	300.00
1- 25 H.P. 1½ H.S.V. Pump	600.00
1- 20 H.P. 1½ H.S.V. Pump needs repairs	300.00
1- 7½ H.P. Westinghouse single stage Monobloc pump	200.00
700- Ft. 3 Conductor 440 Volt Type S. No.2 Cable	500.00
200- Pieces Misl lengths,1" H.O.Steel,Timken and Ing.	800.00
3500- new and second hand Drill bits	800.00
1- Atlas Tramer 18" guage with philco battery and 440 Volt charging panel. New in 1948	5200.00
1- Ford dump truck 1947 Model Good tires and box	2000.00
1- Ford Panel truck, 1938	500.00
3- Air tamers	700.00
1- Double drum slusher,Air	300.00
1- slushing bucket	100.00
1- 2 mile power line, Stubbed poes	2000.00
1- 300 Amp. 440 Volt, Electric welder	400.00
4- Line starters 15-25 H.P.	300.00
1- Lot small tools, Elec. supplies,Pipe supplies Etc	400.00
Total equipment at mine	$ 30540.00
10- Acres deeded land on which the mill sits	3,000.00
6- Unpatented mining Claims covering tunnel and extensions of Iron Mask claim	7,300.00
Total value of claims	10,300.00

Inventory of Equipment of Broadwater Mine and Mill.

At Mill	Cost. Value
I- 8x18 crusher with 20 H.P. [illegible] motor and starter	$ 500.00
I- shaker feeder and motor	50.00
I- belt feeder and motor	50.00
I- 4x4 ball mill, 25 H.P. motor with Vee belts, and starter, new liners	2500.00
I- 4 x 16 Dorr classifier with 3 H.P. motor	300.00
I- 6 x 8 conditioner with 5 H.P. motor Steel tank	300.00
I- Denver reagant feed for Aerofloat with 110 Volt motor	75.00
I- 3 cell Sub A. No.28 Flotation unit, Pb. Circuit	500.00
I- 3 cell Union Iron Wks. small Flotation Pb. circuit	400.00
I- 8 x 8 Conditioner, with 7½ H.P. motor and starter, Wood	400.00
I- Lime feeder with 110 Volt motor	75.00
2- 4 cell units, Sub. A. 36 x 36 on Zinc Circuit	1600.00
I- 6 Ft. Wilfley table	150.00
2- Vacuum Pumps, with motors and starters. Need recondit.	500.00
I- 8 x 16 Thickening tank with motor and Daiphragm Pump En.	1200.00
I- 2 Disc, 6 Ft. Dinco Filter, with Blower, motor and starter starter, only one Disc now on Filter	1000.00
I- 3 x 3 Pan Filter, used for Pb.	100.00
4- Tanks for Pb. Concentrate	100.00
I- Acetylene Generator	250.00
I- Lot Reagents and supplies.	500.00
4- Small extra motors	350.00
I- 50 H.P. extra motor with 6 groove sheave and starter	400.00
I- 25 H.P. extra motor with 6 groove sheave and starter	250.00
I- Lot Miscl. tools, Misc. drills Pipe Etc.	500.00
I- Lot Assay equipment, Scales Furnace Hot Plates Etc.	150.00
3- Ton Grinding Balls. Miscl. sizes	350.00
Total Mill equipment and supplies	$12550.00
Mill Building and Structures at Mine and Mill	10000.00
Total value Mill and Equipment	$ 22550.00
Total Value of Mine Equipment	30540.00
Total Value Equipment and structures	$ 53090.00
Total Value of Claims and deeded land	10300.00
Value of Mine and Mill setup	$ 63390.00

The Value of Machinery owned for sale on separate sheet.

Machinery and Equipment of Broadwater Zinc and Lead.
Surplus and for sale or use at operation.

	At Destiny Ine Cost Value	At Miller chy. Cost Value
1- Clark 440 Volt 200 Amp. air. switch	250.00	
520 Ft. 3 Cond.No.0, 440 Volt Elec. cable	520.00	
1-Heavy 2.5 Diam sheave wheeland bearings	100.00	
1- 5 Ft. Diam sheave wheel with bearings		3 250.00
1- 3½ x 10' Air Receiver	200.00	
1- Boarding House Range Coal,2 ovens. G.A.	400.00	
1- Ottumwa Elec. Hoist,single drum,cut helical gears,reduction 25-1, 1200 Ft. new 3/4 rope on drum. Driven by 75 H.P. slip ring motor, with controller resistance and switch . Can use 150 H.P. motor on hoist.	6000.00	
1- Ingersol Hand Drill sharpenerNo.7"70,typeF2-34	300.00	
1- Ingersol Hand jack bit grinder	250.00	
1- Nearly new I.R. Automatic drifter	625.00	
1- nearly new Ingersoll Automatic Drifter	625.00	
1- Cleveland Drifter Hand cranked 2½ In.	400.00	
1- Cleveland Heavy Stoper,	400.00	
3- Westinghouse 100 Amp. Circuit Breakers Porcelain	135.00	
1- Elevator 12" x 2½ Ft. head and tail pulleys extra brackets driven by 7½ H.P. geared motor	600.00	
1- Kennedy Van Saun secondary crusher,3"-3/8, with spare shaft and spare mantles.20 H.P. A.C. Motor	4000.	4000.00
1-Akins type classifier,4 x 14 Ft. No motor but with switch and starter		300.00
1-Kennedy Van Saun Ball Mill 5 x 5 Vee Belt drive 35 H.P. Westi. Motor Synchronous Two speed, with switches and controller, partially used liners	4000.00	
1- 8 Cell Booth Hearson Flot. Mach. 4-3H.P. motoraBlower, switches and spare parts.No motor on Blower	2000.00	
1- Thickener,low head with Moorepump complete with switches and motor Redwood tank 8 x 20	2000.00	
1- Montana Iron Works hot air furnace with slack coal Thermostatic control feeder	720.00	
1- Jeffrey Vibrating Feeder complete with Carriage and rheostat controll		400.00
1- Belt Magnet with G.E.Jumper rectifier and Etc.		300.00
1- Fairbanks Morse 40Ton truck scale		200.00
1- 6 Ft. Wilfley table 6-1 shape and newlycovered	400.00	
1- Heavy Lab crusher with 3 H.P. Motor and switch	250.00	250.00
1- Laboratory Grinder with 3 H.P. "		150.00
Misc. Blacksmith tools Etc.	400.00	
Total Equipment 200Tons Cap. for sale	20005.00	5850.00
	5850.00	
Total Value of 200 Ton Cap. Equipment for sale	25850.00	

DMA-2742
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Townsend, Mont.
Nov.30, 1950.

Mr. Glenn C. Reed
Mining Division, Bureau of Mines.
Albany, Oregon.

Dear Mr. Reed:

Subject: Information-Defense
Minerals Assistance.
Iron Mask Property
Broadwater County, Mont.

Dear Mr. Reed:

Your letter of Nov.28, in reply to my letter of Nov.2, received and I am enclosing the information which has been requested by a Mr. John W. Taber, U.S.Bureau of Mines, Spokane, Wn., and which he requested in answer to my letters sent to your office at Albany.

I had a sketch map of the property and I sent it to Mr. Taber who was to print copies and return map to me.

In my letter I have given an outline of the grade of ore expected and the immediate tonnage to be developed. This is not the total ore expectancy, but rather the tonnage that can be reasonably said to be developed to start the operation on a production basis.

I think that over 50,000.00 tons of Zinc -Lead ore of the grade as shown can be easily found and possibly double that amount.

This is not a large mine but it is one that will pay back a large amount of metal for each dollar put out to start the undertaking.

Our tonnage of 50 tons per 24 hours, is the most economical tonnage for the vein size and the size of the ore bodies. It is also the tonnage that the water supply from the tunnel services without any trouble with a small amount left over. More water should be found as depth is had on the ore.

The Broadwater Zinc and Lead owes about $ 7,000.00 in open accounts from the last operation in 1949. When Falling and low prices of Zinc and Lead caused us a tremendous loss in income, after the sinking of our capital to open the operation. Thus the Broadwater Zinc and Lead is broke.

We have extra machinery and equipment to sell that should bring on present market prices, over $ 10,000.00 . Most of this is spoken for by small mining operations but they are all broke and awaiting the help of The Defense Minerals Assistance act to buy.

In full operation this property will need the following men.
1- Manager who supervises and keeps books.
1- Working mine foreman.
1- Mechanic and Electrician.
2- Hoistmen
1 - Motorman
1- Dump and Crusher man.

6- Miners
4-Helpers
3- Mill shift bosses
3- Mill helpers
I- Truck Driver
25- men when the mill is operating at capacity of 50 tons plus.

Local labor that have their homes in the vicinity is used. There is an urgent need for work for them as all mining in this county is now down.

The Mill menavailable are especially skilled and know the ore and the equipment.Hi grade concentrates can be made, as in the past.

All assaying necessary,Zinc and Lead,can be run on the property or sent in to Butte and Helena.

Enuf local miners are now available to supply the men needed. If defense work at the customary higher wages and featherbedding practices is started as in times past the local miners will flock to that as in the past war.

During the developement stage of the operation, and the making of the mill changes, not over I8 men will be used.

It is customary to pay mill helpers and mine helpers $ I.00 less than operators and miners.

Power costs at full operation runs about $ 400.00 per month.

Supplies cost at full operation ~~about~~ less than $ 2500.00 per month.

Labor,suplies,Power and Miscl. expense should run not over $ I0.00 per ton.

The bureau of mines has full information on the production of metals from this operation of The Broadwater Zinc and Lead.

Yours very truly,

P. H. Mosier

P.H.Mosier

Townsend, Mont.
Nov.22, 1950.

Mr. John W. Tabor, E.M.
Bureau of Mines
401 P.O.Bldg.
Spokane, Wn.

Dear Mr. Tabor:

I am enclosing sketch maps of The Iron Mask Mine and the adjoining claims of The Broadwater Zinc and Lead, with 5 pages of information on the property.

The mine is easily accessible from Townsend, Mont., over a 6 mile road that is steep and rocky. At present there is a cave in the cross cut tunnel before it reaches the Iron Mask Claim. This occurs at a water cours and shear zone in the andesite. The workings ahead of this point should be easily accessible, if fall is cleaned

The equipment on the property inventories at over $ 60,000.00 and it is one of the few properties where a small investment for developement and equipment will pay nice dividends .

The property has in the past never had sufficient capital. It was worked during the war years by the B.Z.and L. which started on a shoe string and worked that into a rope. Production costs during that period were high and still a profit was made. Developement ahead was never done and all profits were taken out as soon as made. Developement costs were carried by the operation as mining. The Mill except during a few weeks always ran with a low tonnage and consequent higher costs.

By making the suggested improvements in crushing and floatation setup a larger tonnage and a great saving of Zn. in the Lead conc. can be made.

The sulphide ores are very amenable to separation. The last three shipments of Zn. Conc averaged 54.5 % Zn. Tailings losses ran .20 Pb. and .28 Zn. During periods when oxides were passing thru the mill Heads of 15.0 Zn. and 7.5 Pb., gave tails of 8.8 Zn. and 4.5 Pb.

It is foolish and costly to operate this property without doing the developement necessary to run the mill at capacity.

We would like to start the preliminary work as soon as possible so that we can start the metal production so badly needed, quickly, and easily.

Sufficient labor has always been available in this Dist. Skilled mill operators are plentiful. Miners are sufficient. Labor receives $ 1.00 below the Butte scale.

Accessibility to Smelters is a great advantage. Pb. conc. are hauled direct to East Helena. Zinc concentrates are shippedmto A.C.M.

The vein filling and gangue in the sulphide zone is now predominately Rhodocrosite, and there is a great probability that this Mn. Mineral can be floated out after the Zn. and Lead are extracted. The vein filling contains very small amounts of pyrite, at no times over 8 %. This is a great advantage in milling.

We believe that we have a sufficient showing to qualify for Govt. assistance under any act of Congress that seeks to increase the production of Zinc and Lead, and we have also the right to have the aid as there is evidence from past production and from the probable ore reserves to insure the return of any capital invested in the Ist three months of capacity mill operation.

As we have been lead to believe that some premiums will be added to the market pice to speed production and insure success of the undertakings, this will further make for success.

By placing this property with its mill in production we will be able to to handle milling ores from several known small mines in the vicinity.

Yours very truly,

The Broadwater Zinc and Lead

By P.M.Mosier

P. M. Mosier

The Iron Mask Mine, Its developement and the Possibilities of developing sufficient metal to warrant its operation by the Broadwater Zinc and Lead, its present operators.

The Iron Mask Vein is situated on the West slope of the Ist ridge between the N. fork of Indian Creek, and the Valley of the Missouri river. The vein runs N.20degrees West, and has three surface shafts sunk on it from the outcrop, and is cut at the depth of 600 feet by a crosscut tunnel driven from the Missouri valley side of the ridge at an elevation approximately 6,000 feet. This tunnels mouth and the mill and buildings around it can be plainly seen from the town of Townsend.
The vein can be traced for a distance of 2500 feet on the surface. The Iron Mask claim which contains the bulk of the ore is bounded on the North by the Bryan, and on the South by the Silver King.

The Iron Mask Claim is owned I3/24 by R.G.Bayles of Bozeman,9/24 by Thos. Costello and Associates of Seattle and 2/24 by veva Smith of Helena.

The Silver King and Bryan and the Robin R., The Bubbling Over, the Dixie Queen, The Colaris, are owned by the Broadwater Zinc and Lead which is a partnership of R.G.Bayles and P.M.Mosier of Townsend.

The Iron Mask Claim is a patented Claim, the others are unpatented.

The Mill buildings are situated on IO acres of patented ground, in Sec. 30, Township 7 N., Range I east, and is the property of the Broadwater Zinc and Lead.

The property was worked from the surface shafts until I9I3 when the crosscut tunnel was driven. The Hi grade Lead ore found for 200 feet below the surface was not discovered on the tunnel level, and the raise which was driven to tap the bottom of the shaft did not connect where expected and the company went broke.

Leasers working from the shafts broke into the raise and established circulation thus making the working of the property from the tunnel feasible, if power and a milling setup was setup to separate the Zinc and the Lead.

As the oxidation of the surface ores had leached out great amounts of Zinc and given the oxides a secondary and high enrichment of Silver, when the primary ores were found along the tunnel, they were much lower in Lead content and also in silver. The average silver content is nearly .8 Oz. per percent of Lead and the Zinc runs nearly 3 times the Lead percentage.

Shoots of Lead ore are encountered that can be hand sorted and shipped. Most of the shoots consist of overlaping lenses of ore, and these ore occurances were continuous above the 260 foot level for a distance of 600 feet. The vein fracturing above this level was nearly always consisting of two or more parallel veins, most of which were under 2 foot in width. The ore was heavy in Lead and silver and was hoisted and sorted,on the surface. The quality of the surface ores can be shown by the fact that The Broadwater Zinc and Lead, sorted and shipped over 7000 tons of dumps with an average content of I2 Zn.,5 Lead and 3 ounces of Silver.

Considerable tonnages of these dumps were also put thru the Mill, and also much Gob ore and Oxides from the upper workings, when the establishment of an air circulation was made after the main shaft caved and blocked the air completely.

Several thousand tons of Oxide ore was also shipped from the workings and was taken out thru the tunnel.

Below the 300 levelthe ore shoots, due to the tightening of the fracture and the faulty structure, developed into two main shoots. The inside one which was the longest and which was pitching North, had not been cut by the tunnel. The outside one called the No. 4 shoot was e exposed and had a stope started on it, the outlines of this stope can be seen on the map and the samples which were taken in I941 by P.H.G Hosier. This shoot when cut by the tunnel was all sulphide and the ore from this stope had been sorted for Lead.

The Broadwater Zinc and Lead was formed in I942 and took over option on the Iron Mask Claim and also optioned all of the other ground which waspurchased for $ I09400.00

The Power line to the Mill and tunnel was erected in I942, and the Mill building also built.

During the War years the property operated continuosly, and it produced over 5,000,000.00 Lbs. of Zinc and I,800,000.00 Lbs. of Lead with large amounts of Silver. Operating profits of over $ I80,000.00 Net were made thru I947.

The Cancelling of the Premiums and the Low prices of Metals caused the property to close in Sept. I947.

The High prices for Zinc and Lead prevailing in I948, caused the owners to reopen the mine and start developing. However the development was not carried out in time to gain the adavantage of the high metal prices and the lowering of the metal markets in May and June I949, due to the influx of foreign metals, caused a closure of the mine with loss of investment to the owners.

With the present metal prices and sufficient capital to develope the tonnage for a years operation of the mill a profitable operation can be established.

The Vein can be classed as a simple fracture in andesite with much horsetailing above the tunnel level, and a stricture in the centre of the vein that has evidently been due to some side pressure that closed off the flow of the ore forming vapors or magmas to this spot.

There is from 500 to 700 feet of andesite below the tunnel level. The underlying formation should be sedimentary.

The fracturing in the winze is wider and the vein filling is wider below the tunnel levelin the winze. It is not as tight as along the tunnel.

The North ore shoot or No. 8, has lengthened from 55 feet at the tunnel level to I25 feet on the I00 level. This shoot has now started to spread to the South and ore is found in the floor of the I00 Level within 5 feet of the winze. On the 65 Level it was 25 feet from the Winze. Whether this is a continuation of the higher shoot or the top of a new shoot, is problematical. I think it is the top of a shhot of Lense of Lead as it does not appear at all in the top of the drift and if it continues its spread South it will be cut by the downward extension of the winze. The one sample taken on this shoot about 2 feet above the bottom of the level ran.I.8' - Pb.25.00, Zn.I0.0 and it is getting wider and longer as it is followed down.

It was very noticeable in the work on The No. 8 shoot above the tunnel that the Lead in the samples very rarely ran I.0 Percent. and there was a small Lead streak of Galena in the foot wall upward for 200 foot above the tunnel. This never joined the Zinc Shoot until 6 feet below the tunnel track. When it did join the main fracture the Lead values in the ore took a sudden jump. As per Map.

The shoot at No. 7 is strong and continuous in the bottom of the tunnel. It was shown in the top of the drift by chunks and dispersed bunches of ore. Work was started on this showing to try and link it up with the Winze above on the 300 level. However the fracture just tightened up and all ore showing was lost. Three samples in the Bottom of this shoot Taken by The A.S. and R. Ran average. I.8' width. 20.0 Pb., 3.6 Zn,6.4Ag. This shoot or lense will undoubtedly make a nice ore shoot when cut by a drift from the winze as it is getting larger and longer. The Vein fracture is also getting looser and more succeptible to ore deposition.

The No. 4 Shoot was continuous from the Tunnel to the surface. This shoot had good Lead values and higher Silver content than No. 8 Shhot.

Its course was very erratic and the original tunnel lost the main ore several times and followed horsetails from the main fracture.
The F.W. drift had better than a foot of very good Lead. ore on the bottom. The S.Z.and L. stoped upward about 40 feet on this horsetail and it completely disappeared. This strong fracture with good ore should intersect the main fracture about 35- 40 feet below the tunnel. From this point down there should be a looser fracture and the same conditions that were found below the tunnel at No. 8.
This shoot can be developed by a winze from the tunnel and can be said to have chances for much better grade ore than in No. 8. This shoot has averaged between 4 and 5 feet wide. No 8 shoot from the 300 level to the bottom of the winze has been about 6 feet wide.Sometimes I4 feet of ore was stoped.

Should ore be found continuously at lower levels from No. 8 to No 4, The winze at No. 4 should be sunk and used as the last hoisting shaft.

On following pages are the tonnages expected,the Cost of setting up the operation, and the costs of operation. Capital for proper develope ment is the main requirement, as the increase is size of the ore bodies where developed below the tunnel, and the good grade of ore lead one to think that the same condition will be found beneath the other known shoots exposed on the tunnel level.

Using developement in The No. 8 Winze only, the following ore tonnages should be blocked out. Values and widths are taken from the past working on this shbot.

North of Winze	I25 Length x	I00 depth	I2500 x 6' width	75,000.00
South of Winze	50 " x	80 "	4000 x 3' "	I2,000.00
South of Winze 200Ft. Level.		Possible and Highly probable		24,000.00
Left above I00 Ft. Level				I2,000.00
		Total Sq. Ft.		I23,000.00

Using 8 Cu. Ft. per ton Plus I.0 Ft. Overbreak I5,450.00 Tons

Using past average value for the mill heads below the tunnel level and this average includes much waste rock put into the mill heads by careless mining. 8.2 Zn., 3.8 Lead, 2.8 Ag.

Loss in tails .50 Zn., .25 Pb.
Loss in Lead .70 Zn.
Loss in Zn. .I0 Pb.

***

Total Loss I.20 Zn. .35 Pb. Combined Loss I.35

7.0 Zn. @ II.0 Net Smelter ---		I5.40
3.45 Pb. @ 8.83 Net " ----		8.83
2.8 Ag. @ ~~4.96~~ " " -----		I.96
Total net value of ore	$	25.I9
Less Royalty		2.5I
Net to shipper	$	22.68

I5,450.00 X 22.68 -------- $ 350,406.00 Net Smelter expectancy on the Highly probable I5,450.00 tons of ore.
Cost at I0.00 per ton $ I54,400.00
Estimated profit $ I96,006.00

etter ore than that given above can be highly probable, altho a smaller tonnage can also be highly probable. However It is my opinion that a larger tonnage than the above estimate can be found.

The tonnage to be expected at No. 4 shoot should be about I5,000.00 above the 200 Foot depth. Sampling of the Bottom of the tunnel by the A.S.and R. shows an ore that should run. 8.5 Zn., 3.9 Pb. and 2.9 Ag. Width 4.0 Ft.

From this apparant profit the cost of the developement of $55,000.00 can be easily taken and leave a profitable operation.

Past experience and study of this mine has convinced me of the above.

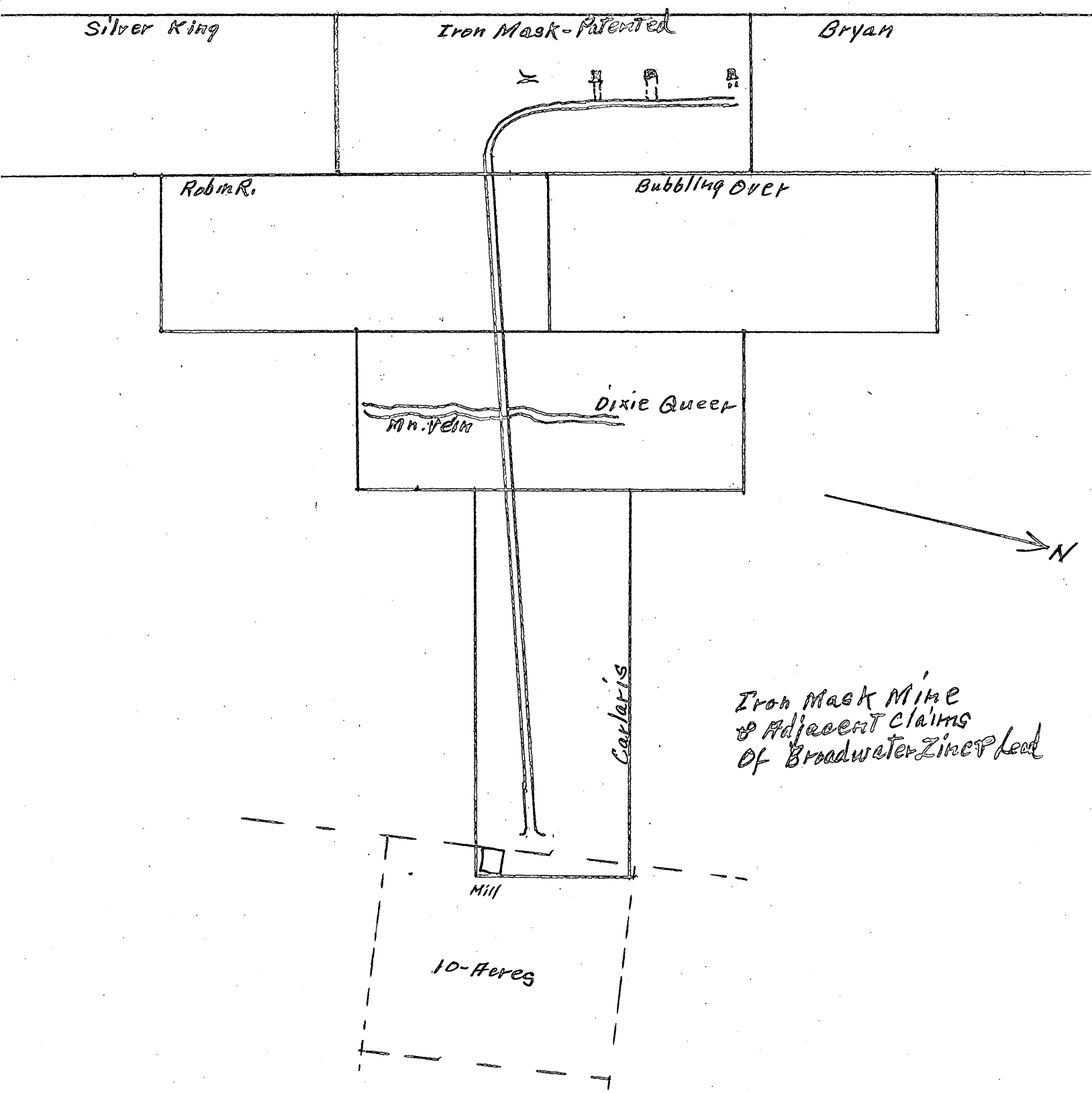
P.M.Mosier,E.M.

If this operation was operating several small Zinc Lead properties adjacent to the property could be opened and mill their ore at this mill.
There is the possibility that these ore bodies outlined above will continue to 500 feet below the tunnel level. They show no loss in value in depth and the vein structure is favorable for their continuance.

Following is the cost of developing Iron Mask Mine and placing Mine and Mill of Broadwater Zinc and Lead on production basis.

Mine	
Repair Power Line, Stub poles and replace stubs.	$ 200.00
Clean Falls and retimber	500.00
Stringing 2300 Volt cable into mine, and place the 2-75K.W. transformers and switches	500.00
Purchase and set 150 CU.FT. COMP. Motor and switches on hand. Outside Compressor is auxillary	1600.00
Pump out shaft. Winze and workings	500.00
Place hoist for winze, Improve dump Etc. Invloves blasting and timbering	1600.00
Sink 120 Ft. shaft winze @ $ 65.00 per Ft.	7800.00
Drift 200 Ft. South on 100 Ft. Level.	3000.00
Drift 120 Ft. North on 200 Ft. Level.	1800.00
Drift 200 Ft. South on 200 Ft. Level.	1800.00
Mine Pump for sinking	850.00
2-Tons Dynamite	760.00
1000- Electric caps	150.00
10000- Ft. rough plank	560.00
5000 - Ft. Rough boards	280.00
Mine timber and pole logging	600.00
4-Tons 25 Lb. rail for main haulage	1000.00
2- Tons 16 Lb. Rail for sub levels.	500.00
1- Sinking Jackhammer	380.00
Repair cars and track	500.00
Xtra battery for Atlas locomotive	1400.00
Miscl. Supplies for mine	1600.00
Total needed to develope Mine	28880.00
Mill	
Repair bin and install crusher and screen for two stage crushing, to increase tonnage milled 10 Tons per	2500.00
Purchase and install 4 cell Flot for Lead. using present cells for cleaners	1200.00
Repair vacuum pumps	500.00
Miscl. repairs	500.00
Install coal furnace for heating mill	500.00
Install thickening tank for Pb. and a second disc on filter	2000.00
Repairs to roofs and dry and cabins	2380.00
Miscl. supplies	2000.00
Total needed to put mill into Production on a 50 ton basis	$ 11580.00
Deposit on power	600.00
Deposit on Industrial Accident	600.00
1- Pickup truck	2200.00
1- Jeep to haul men or jeepster	2000.00
Add 10 % of Mine and Mill expense for unforseenn	4046.00
Overhead and supervision	5094.00
Toatl to place operation on a 50 ton basis	$ 55000.00

All labor and payroll expense are included in the above


Silver King
Iron Mask-Patented
Bryan
Rob m R.
Bubbling Over
Dixie Queer
Mn. vein
N
Carlaris
Iron Mask Mine
& Adjacent Claims
Of Broadwater Zinc & Lead
Mill
10-Acres

166.7

Townsend, Mont.
Oct.18,1950.

The Bureau of Mines
Albany, Oregon.

Gentlemen:

I am writing to you regarding the bureau of Minerals and Energy Administration, which I understand is being setup to handle loans, Etc. for the opening of mines for production of needed minerals.

We have here a completely equiped Zinc- Lead mine, which is now closed for lack of funds for developement. There are plenty of ore reserves to be developed of such a grade that they should be profitable.

This operation was closed in June 1949 when the metal prices had been dr driven down to their low point by the Govt. program of foreign buying.

If you have any information on this program I would like to receive it.

Yours Very truly,
P.M. Mosier
P.M.Mosier
Townsend, Mont.

U. S. BUREAU OF MINES
RECEIVED
DEC 4 1950
ALBANY, OREGON

U. S. BUREAU OF MINES
RECEIVED
OCT 23 1950
ALBANY, OREGON

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. 274 X

Date received 7-2-51

Participation

The Broadwater Zinc and Lead
Townsend, Montana

Name and address of applicant

Date June 26, 1951

FILL IN THIS BLOCK

Date of application June 26- 1951

Estimated cost $ 54 240.00

Mineral or metal Zinc and Lead

Percentage of Government participation 50%

Location of mine Townsend, Montana

Date of filing MF-100 May 1951

DMA Docket Number, if available 274 X

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 2 1951
LANDON F. STROBEL
Executive Secretary

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

JUL 2 1951 5

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.
*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.
*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.
*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.
19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?
21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.
22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

The Broadwater Zinc & Lead Co. (Name of company) By P. M. Moses (Signature of authorized official)

June 21 - 1951 (Date) Partner & Mgr. (Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

M.F.103

The Applicant

6- No Liens or claims against the property.
7- Lease on Iron Mask claim is not completed. Awaiting financing.
8- Financial statement enclosed.
9- Applicant has at present no money to invest in the project. Endeavoring to raise the same.
10- The work is to be done on the Iron Mask Claim Patented. Thru a 2200 Ft. Xcut tunnel driven thru ground owned by the Broadwater Zinc and Lead. Also using all buildings and facilities of the Broadwater Zinc and Lead.
15- The ore will be shipped if shipping to East Helena Pb. smelter. If it is to be milled it will be placed in the bins of The B.Z.and L. Mill

The Exploration

20- The exploration will be for Lead and Zinc.
21- The work will be to sink or deepen the present winze from the 100 Ft. level below the tunnel to the 300 Ft. level and to drive 500 feet of drifts to develope the ore bodies known to exist.
The time should be 5 months, for developing.
22- This was covered in M.F.100 and in first application.

If there is any Govt. agency such as D.P.A. or E.C.A. for domestic small mines, where a loan could be negotiated to carry out the proposed program, the company would gladly take the loan.
If so please advise us.
A landlords subordination agreement has been signed but is held up pending completion of financial arrangements.

If this application is proceesed and a contract sent to us to be signed it will aid in the completion of the necessary financial arrangements.

Broadwater Zinc and Lead D.M.A. 274

M.F.I03

Comparative balance sheet
Dec.3I,I950, July Ist.,I95I

Assets	Dec.3I,I950		July I,I95I	
Cash in Bank		0.00		0.00
Depreciable assets	2026I.00		I47I4.59	
Less Deprec.Reserves	I3560.57		8754.I6	
		6700.43		5960.43
Depletable assets	7300.00		7300.00	
Less: Reser.for Depletion	7300.00		7300.00	
		0.00		0.00
Total Assets		6700.43		5960.43
Liabilities				
Notes Payable	2000.00		0.00	
Bills Owing	9400.00		3950.00	
Total Liabilities		II400.00		3950.00
Net Worth end of year	Minus	I4699.57	Plus	20I0.43

M.F.I03 Broadwater Zinc and Lead D.M.A.274

No.23-Costs Labor

Ist. Month-	I- Manager	$ 500.00	
	3-Miners @ $I2.00	960.00	
	I-Electrician@Mech.	375.00	
	I-Laborer	300.00	
		$ 2I35.00	
2nd. Month-	I- Manager	500.00	
	6-Miners(Contract or days pay)	3I65.00	Sinking
	I- Electrician	400.00	
	3- Hoistmen	960.00	
	I- Mine Foreman	400.00	
		$ 4525.00	
3rd. Month-	Same as Second Month.	$ 4525.00	
4th. Month	I- Manager	500.00	
	7- Miners	3765.00	
	3- Hoistmen	960.00	
	I- Electrician	400.00	
	I- Mine Foreman	400.00	
		$ 6025.00	
5th. Month	Same as Fourth Month	$ 6025.00	
	Total Labor	$23235.00	
	P.R.Taxes II%	$ 2555.85	

Operating Equipment to be purchased and depreciated

I- Pickup	$ 2200.00
I- Jeep	2200.00
I- Pump	900.00
I- Compressor or two small transformers	I800.00
2- Jackhammers	800.00
Total	$ 7900.00

Equipment to be furnished by B.Z.and L. for the job

		Value	Per month Rental Value
Battery Motor and Cars		$ 7000.00	$ 350.00
Elec Equipment, Transformers, switches,cables Motors, Welders Pumps, Etc.		8000.00	400.00
Hoist and Motor		I000.00	I50.00
Compressor- 330 Cu Ft. If used		3000.00	I50.00
	Toatls	$I9000.00	$ 950.00
Ford Dump Truck		2000.00	I00.00
	Totals	$2I000.00	$I050.00

Labor costs for miners are elastic, as the sinking and drifting will be contracted if possible. If not contracted miners will have to be paid at least $ 2.00 per Hr. for sinking, and$ I2.00 for drifting.(8Hrs.)

Repairs to existing facilities limited to roofing, minor repairs and stoves etc.
No new facilities are contemplated.

M.F. 103 Broadwater Zinc and Lead-D.M.A. 274
No.23-24 Costs

	Miscl	Labor	Supplies
Ist. Month			
Payroll Taxes and Labor	$ 234.85	2135.00	
Pickup	2200.00		
Jeep	2200.00		
Deposit on Power Bill	800.00		
Deposit On Industrial Accident	400.00		
Pump	900.00		
Timberaand Lumber			400.00
Car Repirs			200.00
Rails			1000.00
Rail Accessories			150.00
Pipes and Fittings			200.00
Compressor or transformers	1800.00		
Powder			400.00
Fuse and Caps			200.00
Truck and Car Licenses	200.00		
I Jackhammer	400.00		
Steel and Bits			200.00
Miscl. Small tools			100.00
Miscl. Items			200.00
Gas and Tires and Travel.			400.00
Office Expense and general			100.00
Power- Montana Power	150.00		
Insurance - Mgr. and equipment etc.	100.00		
	$ 9384.85	2135.00	3950.00
2nd. Month			
Payroll Taxes and Labor	497.75	4525.00	
Timber and Lumber			400.00
Rails			200.00
Rail Accessories			50.00
Powder			400.00
Fuse and Caps			100.00
Miscl. Items			400.00
Gas Tires Etc.			400.00
Office Expense			100.00
Power- Mont. Power	300.00		
	$ 797.75	4525.00	2050.00
Third Month.			
Payroll Taxes and Labor	497.75	4525.00	
Timber and Lumber			100.00
Hoist Cable			50.00
Powder			400.00
Fuse and Caps			100.00
Steel and Bits			100.00
I- Jackhammer	400.00		
Miscl. Items			200.00
Gas and Tires etc.			500.00
Office Expense			100.00
Power- Mont. Power	300.00		
	$ 1197.75	4525.00	1550.00

Broadwater Zinc and Lead- M.A. 274

M.F.103

No.23-24 Costs	Miscl.	Labor	Supplies
Fourth Month			
Paroll Taxes and Labor	$ 662.75	6025.00	
Timber and Lumber			200.00
Powder			400.00
Fuse and Caps			100.00
Steel and Bits			150.00
Pipe and Fittings			200.00
Miscl. Small tools			100.00
Muscl. Items,Rubber cable			400.00
Gas,Tires Etc.			500.00
Office Expense			100.00
Montana Power	350.00		
	$ 1012.75	6025.00	2150.00
Fifth Month			
Payroll taxes and Labor	662.75	6025.00	
Timber and Lumber			200.00
Equipment repairs	300.00		
Rails			200.00
Rail Accessories			50.00
Taxes- Real	400.00		
Steel and Bits			150.00
Miscl. Small items			400.00
Gas, Tires Etc.			500.00
Office Expense			100.00
Power-Mpt Power	350.00		
Powder			450.00
Fuse and Caps			100.00
	$ 1712.75	6025.00	2150.00

Time Schedule

Ist. Month Clean Falls- Repair Bldgs.-Repair Power Line- Install Power line, transformers,Switches, Hoistin Mine and Pump out.Prepare to sink.

Second Month Sink 90 feet or more

Third Month Sink 60 feet, Cut station and drift 60 plus feet

Fourth Month Sink 60 feet, Cut station and drift 60 feet Plus.

Fifth Month Drift 380 feet.

Total Costs	Equip.& Miscl.	Labor	Supplies
First Month	$ 9384.85	2135.00	3950.00
Second Month	797.75	4525.00	2050.00
Third Month	1197.75	4525.00	1550.00
Fourth Month	1012.75	6025.00	2150.00
Fifth Month	1712.75	6025.00	2150.00
	$14005.85	23235.00	11850.00

Total Costs	$14005.85
Labor	23235.00
Supplies	11850.00
Rental of Equipment	5250.00
Grand Total	$ 54.240.00

Costs to B.Z.and L. $ 24545447

Costs to D.M.A. 24545.47 Plus Equip.rental½- $ 27170.47

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. 274 X

Date received 7-2-51

Participation

The Broadwater Zinc and Lead
Townsend, Montana

Name and address of applicant

Date June 26, 1951

FILL IN THIS BLOCK

Date of application June 26, 1951

Estimated cost $ 54 200.00

Mineral or metal Zinc and Lead

Percentage of Government participation 50%

Location of mine Townsend, Montana

Date of filing MF-100 May 1951

DMA Docket Number, if available 274 X

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 2 1951
LANDON F. STROBEL
Executive Secretary

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
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7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

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9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

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State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
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    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
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    (*c*) Give estimated tonnage and grade of each class of ore reserves.
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THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?
21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

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THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

The Broadwater Zinc & Lead Co (Name of company) By P. M. Mosier (Signature of authorized official)

June 26-195 (Date) Partner & Mgr. (Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

M.F.105

The Applicant

6- No Liens or claims against the property.
7- Lease on Iron Mask claim is not completed. Awaiting financing.
8- Financial statement enclosed.
9- Applicant has at present no money to invest in the project. Endeavoring to raise the same.
10- The work is to be done on the Iron Mask Claim Patented. Thru a 2200 Ft. Xcut tunnel driven thru ground owned by the Broadwater Zinc and Lead. Also using all buildings and facilities of the Broadwater Zinc and Lead.
15- The ore will be shipped if shipping to East Helena Pb. smelter. If it is to be milled it will be placed in the bins of The B.Z.and L. Mill

The Exploration

20- The exploration will be for Lead and Zinc.
21- The work will be to sink or deepen the present winze from the 100 Ft. level below the tunnel to the 300 Ft. level and to drive 500 feet of drifts to develope the ore bodies known to exist.
The time should be 5 months, for developing.
22- This was covered in M.F.100 and in first application.

If there is any Govt. agency such as D.P.A. or E.C.A. for domestic small mines, where a loan could be negotiated to carry out the proposed program, the company would gladly take the loan.
If so please advise us.
A landlords subordination agreement has been signed but is held up pending completion of financial arrangements.

If this application is processed and a contract sent to us to be signed it will aid in the completion of the necessary financial arrangements.

M.F.103

Comparative balance sheet
Dec.31,1950, July 1st.,1951

Assets	Dec.31.1950		July 1.1951	
Cash in Bank		0.00		0.00
Depreciable assets	20261.00		14714.99	
Less Deprec.Reserves	13560.57		8754.16	
		6700.43		5960.43
Depletable assets	7300.00		7300.00	
Less: Reser.for Depletion	7300.00		7300.00	
		0.00		0.00
Total Assets		6700.43		5960.43
Liabilities				
Notes Payable	2900.00		0.00	
Bills Owing	9400.00		3950.00	
Total Liabilities		11400.00		3950.00
Net Worth end of year	Minus	4699.57	Plus	2010.43

M.F.103 Broadwater Zinc and Lead D.M.A.274

No.23-Costs Labor

Ist. Month-	I- Manager	$ 500.00	
	3-Miners @ $I2.00	960.00	
	I-Electrician@Mech.	375.00	
	I-Laborer	300.00	
		$ 2I35.00	
2nd. Month-	I- Manager	500.00	
	6-Miners(Contract or days pay)	3I65.00	Sinking
	I- Electrician	400.00	
	3- Hoistmen	960.00	
	I- Mine Foreman	400.00	
		$ 4525.00	
3rd. Month-	Same as Second Month.	$ 4525.00	
4th. Month	I- Manager	500.00	
	7- Miners	3765.00	
	3- Hoistmen	960.00	
	I- Electrician	400.00	
	I- Mine Foreman	400.00	
		$ 6025.00	
5th. Month	Same as Fourth Month	$ 6025.00	
	Total Labor	$23235.00	
	P.R.Taxes II%	$ 2555.85	

Operating Equipment to be purchased and depreciated

I- Pickup	$ 2200.00
I- Jeep	2200.00
I- Pump	900.00
I- Compressor or two small transformers	I800.00
2- Jackhammers	800.00
Total	$ 7900.00

Equipment to be furnished by B.Z.and L. for the job

	Value	Per month Rental Value
Battery Motor and Cars	$ 7000.00	$ 350.00
Elec Equipment, Transformers, switches, cables Motors, Welders Pumps, Etc.	8000.00	400.00
Hoist and Motor	I000.00	50.00
Compressor- 330 Cu Ft. If used	3000.00	I50.00
Toatls	$I9000.00	$ 950.00
Ford Dump Truck	2000.00	I00.00
Totals	$2I000.00	$I050.00

Labor costs for miners are elastic, as the sinking and drifting will be contracted if possible. If not contracted miners will have to be paid at least $ 2.00 per Hr. for sinking, and $ I2.00 for drifting.(8Hrs.)

Repairs to existing facilities limited to roofing, minor repairs and stoves etc.
No new facilities are contemplated.

M.F. 103
No.23-24 Costs

Broadwater Zinc and Lead-D.M.A. 274

	Miscl	Labor	Supplies
Ist. Month			
Payroll Taxes and Labor	$ 234.85	2135.00	
Pickup	2200.00		
Jeep	2200.00		
Deposit on Power Bill	800.00		
Deposit On Industrial Accident	400.00		
Pump	900.00		
Timberaand Lumber			400.00
Car Repirs			200.00
Rails			1600.00
Rail Accessories			150.00
Pipes and Fittings			200.00
Compressor or transformers	1800.00		
Powder			400.00
Fuse and Caps			200.00
Truck and Car Licenses	200.00		
I Jackhammer	400.00		
Steel and Bits			200.00
Miscl. Small tools			100.00
Miscl. Items			200.00
Gas and Tires and Travel.			400.00
Office Expense and general			100.00
Power- Montana Power	150.00		
Insurance - Mgr. and equipment etc.	100.00		
	$ 9384.85	2135.00	3950.00
2nd. Month			
Payroll Taxes and Labor	497.75	4525.00	
Timber and Lumber			400.00
Rails			200.00
Rail Accessories			50.00
Powder			400.00
Fuse and Caps			100.00
Miscl. Items			400.00
Gas Tires Etc.			400.00
Office Expense			100.00
Power- Mont. Power	300.00		
	$ 797.75	4525.00	2050.00
Third Month.			
Payroll Taxes and Labor	497.75	4525.00	
Timber and Lumber			100.00
Hoist Cable			50.00
Powder			400.00
Fuse and Caps			100.00
Steel and Bits			100.00
I- Jackhammer	400.00		
Miscl. Items			200.00
Gas and Tires etc.			500.00
Office Expense			100.00
Power- Mont. Power	300.00		
	$ 1197.75	4525.00	1550.00

Broadwater Zinc and Lead- M.A. 274

M.F.103

No.23-24 Costs	Miscl.	Labor	Supplies
Fourth Month			
Paroll Taxes and Labor	$ 662.75	6025.00	
Timber and Lumber			200.00
Powder			400.00
Fuse and Caps			100.00
Steel and Bits			150.00
Pipe and Fittings			200.00
Miscl. Small tools			100.00
Muscl. Items, Rubber cable			400.00
Gas, Tires Etc.			500.00
Office Expense			100.00
Montana Power	350.00		
	$ 1012.75	6025.00	2150.00
Fifth Month			
Payroll taxes and Labor	662.75	6025.00	
Timber and Lumber			200.00
Equipment repairs	300.00		
Rails			200.00
Rail Accessories			50.00
Taxes- Real	400.00		
Steel and Bits			150.00
Miscl. Small items			400.00
Gas, Tires Etc.			500.00
Office Expense			100.00
Power-Mnt Power	350.00		
Powder			450.00
Fuse and Caps			100.00
	$ 1712.75	6025.00	2150.00

Time Schedule

Ist. Month Clean Falls- Repair Bldgs.-Repair Power Line- Install Power line, transformers, Switches, Hoistin Mine and Pump out. Prepare to sink.

Second Month Sink 90 feet or more

Third Month Sink 60 feet, Cut station and drift 60 plus feet

Fourth Month Sink 60 feet, Cut station and drift 60 feet Plus.

Fifth Month Drift 380 feet.

Total Costs	Equip.& Miscl.	Labor	Supplies
First Month	$ 9384.85	2135.00	3950.00
Second Month	797.75	4525.00	2050.00
Third Month	1197.75	4525.00	1550.00
Fourth Month	1012.75	6025.00	2150.00
Fifth Month	1712.75	6025.00	2150.00
Total Costs	$14005.85	23235.00	11850.00
Labor	23235.00		
Supplies	11850.00		
Rental of Equipment	5250.00		
Grand Total	$ 54.240.00		

Costs to B.Z.and L. $ 24545.47

Costs to D.M.A. 24545.47 Plus Equip.rental½- $ 27170.47

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. 274 X

Date received 7-2-51

Participation

The Broadwater Zinc and Lead
Townsend, Montana

Name and address of applicant

Date June 26, 1951

FILL IN THIS BLOCK

Date of application June 26, 1951

Estimated cost $ 54 240.00

Mineral or metal Zinc and Lead

Percentage of Government participation 50%

Location of mine Townsend, Montana

Date of filing MF-100 May 1951

DMA Docket Number, if available 274 X

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 2 1951
LANDON F. STROBEL
Executive Secretary

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

The Broadwater Zinc & Lead Co
(Name of company)

By P. M. Mosier
(Signature of authorized official)

June 21-1951
(Date)

Partner & Manager
(Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

M.F.103

The Applicant

6- No Liens or claims against the property.
7- Lease on Iron Mask claim is not completed. Awaiting financing.
8- Financial statement enclosed.
9- Applicant has at present no money to invest in the project. Endeavoring to raise the same.
10- The work is to be done on the Iron Mask Claim Patented. Thru a 2200 Ft. Xcut tunnel driven thru ground owned by the Broadwater Zinc and Lead. Also using all buildings and facilities of the Broadwater Zinc and Lead.
15- The ore will be shipped if shipping to East Helena Pb. smelter. If it is to be milled it will be placed in the bins of The B.Z.and L. Mill

The Exploration

20- The exploration will be for Lead and Zinc.
21- The work will be to sink or deepen the present winze from the 100 Ft. level below the tunnel to the 300 Ft. level and to drive 500 feet of drifts to develope the ore bodies known to exist.
The time should be 5 months, for developing.
22- This was covered in M.F.100 and in first application.

If there is any Govt. agency such as D.P.A. or E.C.A. for domestic small mines, where a loan could be negotiated to carry out the proposed program, the company would gladly take the loan.
If so please advise us.
A landlords subordination agreement has been signed but is held up pending completion of financial arrangements.

If this application is proceesed and a contract sent to us to be signed it will aid in the completion of the necessary financial arrangements.

M.F.103

Broadwater Zinc and Lead D.M.A. 274

Comparative balance sheet
Dec.31,1950, July 1st.,1951

Assets	Dec.31.1950		July 1.1951	
Cash in Bank		0.00		0.00
Depreciable assets	20261.00		14714.59	
Less Deprec.Reserves	13560.57		8754.16	
		6700.43		5960.43
Depletable assets	7300.00		7300.00	
Less: Reser.for Depletion	7300.00		7300.00	
		0.00		0.00
Total Assets		6700.43		5960.43
Liabilities				
Notes Payable	2000.00		0.00	
Bills Owing	9400.00		3950.00	
Total Liabilities		11400.00		3950.00
Net Worth end of year	Minus	4699.57	Plus	2010.43

N.F.103 Broadwater Zinc and Lead D.M.A.274

No.23-Costs Labor

1st. Month-	I- Manager	$ 500.00	
	3-Miners @ $12.00	960.00	
	I-Electrician Mech.	375.00	
	I-Laborer	300.00	
		$ 2135.00	
2nd. Month-	I- Manager	500.00	
	6-Miners(Contract or days pay)	3165.00	Sinking
	I- Electrician	400.00	
	3- Hoistmen	960.00	
	I- Mine Foreman	400.00	
		$ 4525.00	
3rd. Month-	Same as Second Month.	$ 4525.00	
4th. Month	I- Manager	500.00	
	7- Miners	3765.00	
	3- Hoistmen	960.00	
	I- Electrician	400.00	
	I- Mine Foreman	400.00	
		$ 6025.00	
5th. Month	Same as Fourth Month	$ 6025.00	
	Total Labor	$23235.00	
	P.R.Taxes II%	$ 2555.85	

Operating Equipment to be purchased and depreciated

I- Pickup	$ 2200.00
I- Jeep	2200.00
I- Pump	900.00
I- Compressor or two small transformers	1800.00
2- Jackhammers	800.00
Total	$ 7900.00

Equipment to be furnished by B.Z.and L. for the job

	Value	Per month Rental Value
Battery Motor and Cars	$ 7000.00	$ 350.00
Elec Equipment, Transformers, switches, cables Motors, Welders Pumps, Etc.	8000.00	400.00
Hoist and Motor	1000.00	50.00
Compressor- 350 Cu Ft. If used	3000.00	150.00
Toatls	$19000.00	$ 950.00
Ford Dump Truck	2000.00	100.00
Totals	$21000.00	$1050.00

Labor costs for miners are elastic, as the sinking and drifting will be contracted if possible. If not contracted miners will have to be paid at least $ 2.00 per Hr. for sinking, and $ 12.00 for drifting.(8Hrs.)

Repairs to existing facilities limited to roofing, minor repairs and stoves etc.
No new facilities are contemplated.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. 274 X

Date received 7-2-51

Participation

The Broadwater Zinc and Lead Co
Townsend, Montana

Name and address of applicant

Date June 26, 1951

FILL IN THIS BLOCK

Date of application June 26- 1951

Estimated cost $54 240.00

Mineral or metal Zinc and Lead

Percentage of Government participation 50%

Location of mine Townsend, Montana

Date of filing MF-100 May 1951

DMA Docket Number, if available 274 X

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application, and refer to it in space for answer. If the application is approved you will be presented with an exploration project contract on Form MF-200, for your signature.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 2 1951
LANDON F. STROBEL
Executive Secretary

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.
*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.
*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.
*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.
19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?
21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.
22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

The Broadwater Zinc & Lead Co (Name of company) By P. M. Mosier (Signature of authorized official)

June 21 - 1951 (Date) Partner & Mgr. (Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

M.F.103

The Applicant

6- No Liens or claims against the property.
7- Lease on Iron Mask claim is not completed. Awaiting financing.
8- Financial statement enclosed.
9- Applicant has at present no money to invest in the project. Endeavoring to raise the same.
10- The work is to be done on the Iron Mask Claim Patented. Thru a 2200 Ft. Xcut tunnel driven thru ground owned by the Broadwater Zinc and Lead. Also using all buildings and facilities of the Broadwater Zinc and Lead.
15- The ore will be shipped if shipping to East Helena Pb. smelter. If it is to be milled it will be placed in the bins of The B.Z.and L. Mill

The Exploration

20- The exploration will be for Lead and Zinc.
21- The work will be to sink or deepen the present winze from the 100 Ft. level below the tunnel to the 300 Ft. level and to drive 500 feet of drifts to develope the ore bodies known to exist.
The time should be 5 months, for developing.
22- This was covered in M.F.100 and in first application.

If there is any Govt. agency such as D.P.A. or S.C.A. for domestic small mines, where a loan could be negotiated to carry out the proposed program, the company would gladly take the loan.
If so please advise us.
A landlords subordination agreement has been signed but is held up pending completion of financial arrangements.

If this application is processed and a contract sent to us to be signed it will aid in the completion of the necessary financial arrangements.

Broadwater Line and Land R.E.A. 274

M.F.103

Comparative balance sheet
Dec.31,1950, July 1st.,1951

Assets	Dec.31,1950		July 1,1951	
Cash in Bank		0.00		0.00
Depreciable assets	20261.00		14714.59	
Less Deprec.Reserves	13560.57		8754.16	
		6700.43		5960.43
Depletable assets	7300.00		7300.00	
Less: Reser.for Depletion	7300.00		7300.00	
		0.00		0.00
Total Assets		6700.43		5960.43
Liabilities				
Notes Payable	2900.00		0.00	
Bills Owing	9400.00		3950.00	
Total Liabilities		12400.00		3950.00
Net Worth end of year	Minus	5699.57	Plus	2010.43

M.F.103 Broadwater Zinc and Lead D.M.A.274

No.23-Costs Labor

1st. Month-	I- Manager	$ 500.00	
	3-Miners @ $12.00	960.00	
	I-Electrician Mech.	375.00	
	I-Laborer	300.00	
		$ 2135.00	
2nd. Month-	I- Manager	500.00	
	6-Miners(Contract or days pay)	3165.00	Sinking
	I- Electrician	400.00	
	3- Hoistmen	960.00	
	I- Mine Foreman	400.00	
		$ 4525.00	
3rd. Month-	Same as Second Month.	$ 4525.00	
4			
4th. Month	I- Manager	500.00	
	7- Miners	3765.00	
	3- Hoistmen	960.00	
	I- Electrician	400.00	
	I- Mine Foreman	400.00	
		$ 6025.00	
5th. Month	Same as Fourth Month	$ 6025.00	
	Total Labor	$23235.00	
	F.R.Taxes 11%	$ 2555.85	

Operating Equipment to be purchased and depreciated

I- Pickup	$ 2200.00
I- Jeep	2200.00
I- Pump	900.00
I- Compressor or two small transformers	1800.00
2- Jackhammers	800.00
Total	$ 7900.00

Equipment to be furnished by B.Z.and L. for the job

	Value	Per month Rental Value
Battery Motor and Cars	$ 7000.00	$ 350.00
Elec Equipment, Transformers, switches, cables Motors, Welders Pumps, Etc.	8000.00	400.00
Hoist and Motor	1000.00	50.00
Compressor- 550 Cu Ft. If used	3000.00	150.00
Totals	$19000.00	$ 950.00
Ford Dump Truck	2000.00	100.00
Totals	$21000.00	$1050.00

Labor costs for miners are elastic, as the sinking and drifting will be contracted if possible. If not contracted miners will have to be paid at least $ 2.00 per Hr. for sinking, and $ 12.00 for drifting.(8hrs.)

Repairs to existing facilities limited to roofing, minor repairs and stoves etc.
No new facilities are contemplated.

Exp. 2
A.F. 103
No.23-24 Costs

Broadwater Zinc and Lead-D.N.A. 274

	Misel	Labor	Supplies
Int. Month			
Payroll Taxes and Labor	$ 234.85	2135.00	
Pickup	2200.00		
Jeep	2200.00		
Deposit on Power Bill	800.00		
Deposit On Industrial Accident	400.00		
Pump	900.00		
Timberaand Lumber			400.00
Car Repirs			200.00
Rails			1800.00
Rail Accessories			150.00
Pipes and Fittings			200.00
Compressor or transformers	1800.00		
Powder			400.00
Fuse and Caps			200.00
Truck and Car Licenses	200.00		
1 Jackhammer	400.00		
Steel and Bits			200.00
Misel. Small tools			100.00
Misel. Items			200.00
Gas and Tires and Travel.			400.00
Office Expense and general			100.00
Power- Montana Power	150.00		
Insurance - Mgr. and equipment etc.	100.00		
	$ 9384.85	2135.00	3950.00
2nd. Month			
Payroll Taxes and Labor	497.75	4525.00	
Timber and Lumber			400.00
Rails			200.00
Rail Accessories			50.00
Powder			400.00
Fuse and Caps			100.00
Misel. Items			400.00
Gas Tires Etc.			400.00
Office Expense			100.00
Power- Mont. Power	300.00		
	$ 797.75	4525.00	2050.00
Third Month.			
Payroll Taxes and Labor	497.75	4525.00	
Timber and Lumber			100.00
Hoist Cable			50.00
Powder			400.00
Fuse and Caps			100.00
Steel and Bits			100.00
1- Jackhammer	400.00		
Misel. Items			200.00
Gas and Tires etc.			500.00
Office Expense			100.00
Power- Mont. Power	300.00		
	$ 1197.75	4525.00	1550.00

Bro[illegible]ator Zinc and Lead- D.M.A. [illegible]274

M.P.103

No.23-24 Costs	Miscl.	Labor	Supplies
Fourth Month			
Payroll Taxes and Labor	$ 662.75	6025.00	
Timber and Lumber			200.00
Powder			400.00
Fuse and Caps			100.00
Steel and Bits			150.00
Pipe and Fittings			200.00
Miscl. Small tools			100.00
Miscl. Items, Rubber cable			400.00
Gas, Tires Etc.			500.00
Office Expense			100.00
Montana Power	350.00		
	$ 1012.75	6025.00	2150.00
Fifth Month			
Payroll taxes and Labor	662.75	6025.00	
Timber and Lumber			200.00
Equipment repairs	300.00		
Rails			200.00
Rail Accessories			50.00
Taxes- Real	400.00		
Steel and Bits			150.00
Miscl. Small items			400.00
Gas, Tires Etc.			500.00
Office Expense			100.00
Power-Mot Power	350.00		
Powder			450.00
Fuse and Caps			100.00
	$ 1712.75	6025.00	2150.00

Time Schedule

1st. Month Clean Falls- Repair Bldgs.-Repair Power Line- Install Power line, transformers, Switches, Hoistin Mine and Pump out. Prepare to sink.

Second Month Sink 90 feet or more

Third Month Sink 60 feet, Cut station and drift 60 plus feet

Fourth Month Sink 60 feet, Cut station and drift 60 feet Plus.

Fifth Month Drift 300 feet.

Total Costs

	Equip.& Miscl.	Labor	Supplies
First Month	$ 9384.85	2135.00	3950.00
Second Month	797.75	4525.00	2050.00
Third Month	1197.75	4525.00	1550.00
Fourth Month	1012.75	6025.00	2150.00
Fifth Month	1712.75	6025.00	2150.00
Total Costs	$14005.85	23235.00	11850.00
Labor	23235.00		
Supplies	11850.00		
Rental of Equipment	5250.00		
Grand Total	$ 54,240.00		

Costs to B.Z.and L. $ 24545.47

Costs to D.M.A. 24545.47 Plus Equip.rental- $ 27170.47

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. Dma-374

Date received 5/28/51

The Broadwater Zinc and Lead
Box 59, Townsend, Montana

Name and address of applicant

Date May 20, 1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
Dr. R.G.Bayles Bozeman- Mont.	Partner	None	$100.000	60%		None	
P.M.Mosier Townsend, Mont.	Manager Partner	None	10,0000	40%		None	
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)	On separate sheet				
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. 40- 50 tons per day

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

On separate sheet

Addenda to M.F.-100,Page I
Broadwater Zinc and Lead Co.
Townsend, Montana.

General Technical Data

I- Products- Lead and Zinc Concentrates- Heavy Mn. vein filling,of Rhodonite and Rhodocrosite.
2- Iron Mask mining claim, and other contiguous claims.40-50 ton mill Lead Zinc flotation.
a- 700 feet of shafts. 25,000.00 Sq.Ft. of stopes.
b- 3000 feet of drifts and X cuts.
c- 2500 feet of X cut tunnel.
D- 100 feet of winze below tunnel level.
Winze is full of water below tunnel level. Makes 10-30 Gal. per minute in winze. 30-40- Gal water makes in shear zone outside vein, on East slope of hill.

3- a- 5-Miles West of Townsend, Mont.6Miles of road.
b- Hassell Mining Dist.
c- T.7 N.,Sec.19, Range I East. Principal Meridian.
d- Broadwater Co., State-Montana.
4- Property not in operation.
b- Property(Iron Mask Claim) under lease to Broadwater Zinc and Lead. 7 contiguous claims and 20 Acres Deeded ground owned by B.Z.and L. including X cut Tunnel.
5- Production by B.Z.and L. 1942- 1943-1944- 1945-1946-1947-1949. Future production depends on financing of developement and mining.
6- Broadwater Zinc was formed in 1942, as a partnership, after a report by P.M.Mosier on The Iron Mask mine. The report was substantiated in all respects by the findings as mining was carried on in the property.

b- The Mill ,all buildings and the entire assets of the company are owned by Dr. R.G.Bayles of Bozeman, and P.M.Mosier of Townsend. P.M.Mosier acts as Manager, 40 years experience in mining and milling thru every capacity.
7- The history of property dates back to 1890 and before. Rich surface Lead ores(oxide) were mined thru two shafts to a depth of 300 feet. Ore was mined for a length of 500 feet and 200 feet in depth continuously, in one or more splits of the vein. Then the ore took definit form , and assumed two shoots,The inside one and the outside one. See Map. The inside shoot was split to a depth of 500 feet.
Water conditions hampered the work from the surface as depth was obtained and in 1914 the long X cut tunnel was started from the East slope of the mountain ridge to tap the vein. This was carried thru , but the upraise to tap the lowest shaft failed to connect in time, and the company went broke.
The property was idle for several years and then was worked intermittently by leasers from the surface. These leasers connected thru into the upraise from the tunnel. They worked the spots of ore that were high in Lead and low in Zinc. As Zinc predominated this was limited.
In 1942 the Broadwater Zinc and Lead was formed and took over a lease on The Iron Mask claim and erected a 40-50-ton mill, and carrying power to the property, from the Montana Power company.
While the mill was being erected, the main shaft caved and plugged off the air to the tunnel workings. Eight months of work was neceassry to open up circulation. This kept the mill idle as very little shooting could be done. The oxide ores in the workings and the dumps were shipped crude and not milled. About 160 -60ton carloads of crude were shipped. The ore milled above the tunnel level always had considerable amounts of oxides in it. Tailings losses were quite large, Separation of the Lead and Zinc was good. Concentrates were of good grade.
In 1946 on the suspension of the Premiums, the property was leased to a group of miners who were to sink the winze on the No.8 chute of zinc ore. They sunk 60 feet in 4 months and had considerable internal quarrelling, so that the work accomplished was not great. In 1947 on the suspension of the premiums on Lead and Zinc, the property was closed. In 1948 the prices had risen to a point where the operation could be thought to be profitable, and an electric battery Locomotive was purchased and equipment to carry the power into the long tunnel. Due to the policy of the Various Govt. Depts. of protecting the foreign mining interests of the larger companies, the prices of Lead and Zinc were driven down by large purchases of foreign metal, and the investments of capital to develope the mine and produce were lost as no company could operate on the low prices of 1949. With all of the small producers closed

and driven off the labor market,the rise in prices that immediately ensumed found the B.Z.and L. broke. Also the confidence in the public who invest in Mining ventures was badly shaken in the future of the industry, as it appeared that Domestic Mining , was to be penalized thru Govt. control of prices and thus be forced to seek Govt. financing. There is in the winze above the 100 level about 2000 tons of average Lead Zinc ore blocked out. However this ore should not be taken out until enuf ore has been developed to keep the mill going at capacity and thus cut the costs of mining and milling. There should be 75,000 to 100,000 tons of ore left in the property below the tunnel level.

7-b, There are no properties within two miles of the mine. The Park Dist. mines on the N. fork of Indian creek are the closest.
7-c, There are no reports on the property that I know of. An A.S.and R. engineer sampled the No. 4 and the No. 7 ore shoots on the tunnel level in 1948. The winze was not available.
The No. 4 ore shoot 10 samples Pb.4.40,Zn.9,14,Ag.2.20- Length 120 Ft. width 3.30
The No. 7 ore shoot.Lehgth 17 Ft. Width 1.77,Ag. 9.95- Pb 15.20-Zn3.89
This shoot shows only scattered ore in the back of the drift, and is undoubtedly the top of a Lead lenze, such as occurs above.
The winze section is shown on the map.

12- The ore deposits are contained in either lenticular masses of very good Lead Zinc ore, or in parallel narrow fractures where there is a sheeted condition over widths to as much as 14 feet.
Very little pyrite is found in the ore bodies and above the tunnel level it was unusual to see any pieces of pyrite larger than a bean. In the lowest level there is now at times small chunks of pyrite which seems to be getting more prevalent. The wall of the vein has always shown a bout 10% pyrite in very smalldiffused particles. The Lead and Zinc mostly is not intimately mixed and appears to have been deposited at different periods, as very high grade streaks of both Lead and Zinc are found in parallel fractures.
The No.8 ore shoot and the No. 4 Ore shoot extend from the tunnel to the surface. There is no indication that they should not go to depth.
The No. 8 ore shoot has increased in length from 55 feet at the tunnel levàlto 100 feet on the 100 Ft. winze level, and it is lengthening and raking North. Between this ore shoot and the winze, another shoot of ore is exposed on the floor of the drift. This shoot is Hi grade Lead and averages ove 1.4 Ft. in width and it does not show in the top of the drift. It should get longer and wider and is definitely a shoot of Lead.
The No. 7 shoot of ore shows for 17 feet in the bottom of the tunnel level and is getting better as it goes down. It occured in the back of the tunnel in scattered spots of Lead Zinc, and the values disappeared as it was prospected upward.
The vein filling where not entirely Lead and Zinc and highly oxidized, is mostly Rhodocrosite and Rhodonite with minor parts of calcite and barite.
There are no intrusive rocks that I know of within 2 miles of the mine and the andesite flows in which the fracturing occurs should be at least 600 feet lower than the tunnel level. From the strength and the size of the ore there is great possibility that the ore will extend to a depth of 500 feet and possibly to the underlying shale and limestone. As the water that makes in the lowest level is alkaline it can be presumed that it is the proximity of the underlying limestone that produces this condition.

b-2, This is on separate sheets of paper.

13- Road is all weather road from Townsend, rough and steep.
14- Water supply is from the tunnel. It is sufficient for a 50 ton mill and varies little. Lowest in April and May. Depending on Fall rainfall
15- Power is from the Montana power Co. Transformers at mine are capable of handling all capacity,needed. If the 300 Ft. G.D. compressor now at the tunnels mouth is moved into the mine, then additional transformer capacity od 35 K.V.A. will be needed both inside and outside the tunnel.
16- Labor needed.

1- Mine foreman.	$ 350.00	1- Electrician	$ 350.00
2- Hoist men.	12.00	3- Mill operators	12.00
2- Motormen.	12.00	3- Mill helpers	11.00
10- Miners.	12.00	1- Top man	11.00
1- Manager	500.00	1- truck driver	12.00

Full Complement

I2-9,6,- Total ore or Mineral Reserves

Ore	Estimated Tons	Mineral content per ton	Gross Value Ton	Recoverable unit value-ton	Cost per ton
Proven	I200	Ag. 2.0 Zn. 8.00 Pb. 3.00	$ 40.00	$ 24.07	$ II.00
Probable above 200 Winze level					
No.8 shoot	86II	Ag. 2.0 Zn. 8.00 Pb. 3.00	$ 40.00	$ 24.07	$ II.00
No.8.South	835	Ag. 3.50 Zn. 5.00 Pb.I5.00	$ 7I.65	$ 53.32	$ II.00
No.7 Shoot	376	Ag. 9.95 Zn. 3.89 Pb.I5.20	$ 74.26	$ 26.73	$ II.00
No.4 Shoot	I0533	Ag. 2.20 Zn. 9.I4 Pb. 4.40	$ 48.93	$ 23.96	$ II.00
Possible ore between 200-300 Winze Level.					
No. 8 shoot	8600		$ 40.00	$ 24.07	$ II.00
No. 4 shoot	5000		$ 48.93	$ 23.96	$ II.00
Other ore	3000		$ 70.00	$ 30.00	$ II.00
Very Low Estimate	38I50				

There has been no diminishing of value as depth is reached, and the vein apears to be opening up below the barren tight block on the tunnel level.

I0- Production Total of Broadwater Zinc and Lead.

9,600 tons crude shipped Av. content 4.0 Pb. II.0 Zn.
36,000 tons ore milled. " " 3.9 Pb. 8.50 "
I,800,000 Lbs. Lead produced
4,200,000 Lbs. Zinc "
I948- No Production
I949-I2000 Tons milled 44.6 tons Pb. Conc(58.0 Pb.-I4% Zn.)
II4.0 Tons Zn. Conc.(53.45 % Zn.-2.0 Pb.)

I950- No production.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)	On separate sheet				
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

The Broadwater Zinc and Lead
(Name of company)

By P. M. Mosier
(Signature of authorized official)

May 20, 1951
(Date)

Manager
(Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. Dma-274

Date received 7/28/51

The Broadwater Zinc & Lead
Box 59, Townsend, Mont.

Name and address of applicant

Date May 20-1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) ~~Necessity Certificate pursuant to the provisions of Sec. 124 A (Amortization Deduction) of Internal Revenue Code, 1950,~~ (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

5 GENERAL TECHNICAL DATA

On Separate sheets

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production .....

   If not in production or operation, estimated date when production will begin .....
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
Dr. R. A. Bayles Bozeman-Mont	Partner	None	$100,000.00	60%		None	
P. M. Mopier Townsend-Mont	Manager Partner	None	$10,000.00	40%		None	
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)	Separate Sheet				
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. 40-50 tons Daily

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves. Separate Sheet.

Addonda to M.P.-I00, Page 3
Broadwater Zinc and Lead Co.
Townsend, Mont.
I2- b 2- Calculation of ore reserves.
Assumed values-Taken from sampling and also from mill head values.

No. 8 ore shoot-	2.0 Oz.	Ag.	- 8.0 %	Zinc	- 3.0 %	Pb.	Width	8 and	5.0 ft
No. 4 ore shoot-	I.76 "	"	- 7.5I%	"	- 3.55%	"	"		3.95
No.8,S. shoot	- 3.50 "	"	- 5.0 %	"	-I5.00%	"	"		3.00
No.7, ore shoot-	4.97 "	"	- I.90%	"	- 7.60%	"	"		3.54

With Milling losses of .50Ag. -.90 Zn.- .50 Pb. and with a net on smelter returns of Silver $.80- Zinc ,II.cents- Lead I4.5 cents

Dollarvalues of ore

No. 8-	Ag.	$ I.20	- Zn.	I5.62	-Pb.	$ 7.25	Total value	$	24.07
No.4 -	Ag.	$ I.0I	- Zn.	I4.I0	-Pb.	$ 8.95	Total Value	$	23.96
No.8 S.	Ag.	$ 2.40	- Zn.	9.02	-Pb.	$4I.90	Total Value	$	53.32
No.7	Ag.	$ 3.94	- Zn.	2.20	-Pb.	$26.73	Total Value	$	26.73

Calculation of tonnage

I200 tons of Provenore in No. 8 shhot above the I00 winze level

No.8 shoot- 50 x8 xI00Ft. depth----	40,000	Cu Ft.		
75 x 5 x I00 "	37,500	" "		
	77,500	" "	8,6II	Tons
No. 4 shoot-I20 x3.95 x200 "	I42,200	" "	I0,533	"
No.8South shhot 50x 3x50 "	7,500	" "	835	"
No 7 shoot -I7 x 3.54 x 50 "	3,009	" "	376	"
Total estimated tons			20,355	"

No. 8 shoot 8,6II tons @ 24.07---	$ 207,266.00
No. 8 S.Shoot 835 tons @ 53.32---	44,522.00
No. 7 shoot 376 tons @ 26.73 --	I0,050.00
Proven ore No.8 I200 tons @ 24.07	28,884.00
Total value from the 200Level to tunnel	$ 290,742.00
Developement costs to 300 level	60,000.00
	$ 230,742.00
Less Mining Costs II,022tons @$II.00	I2I,242.00
Possible assured profit above 200 level	I09,500.00

Using developement to the 300 level. No estimate made on ore below 200

Development of No.4 ore shhot.

220 Ft. of winze	$ I5,000.00	This to be started after No. 8 developement is finished.
500 Ft. of Drift	I0,000.00	
Miscl. expense	I0,000.00	
	$ 35,000.00	

No. 4 shoot above 200 level. I0,533 tons @ $ 23.96 ---	$253,370.00
Less I0,533 tons mining cost @ $II.00	II5,863.00
	$I37,507.00
Less developement costs	35,000.00
Possible net profit in No. 4 shoot above the 200	$ I02,507.00
Possible net profit in No.8 and No 7 " ""	I09,500.00
Total to be expected.	$ 2I2,007.00

For the original deveopement costs, several thousand tons of ore should be shown below the 200 level in the No. 8 shoot and the No. 8 South shoot which is the Lead shoot showing in the I00 drift just N. of the winze. Also the No. 7 shoot of ore should developemenany times the tonnage given. Shipping lead ore should be found as it has been in the past , in some of the lead lenses .

Addenda to M.F.-100, Page I
Broadwater Zinc and Lead Co.
Townsend, Montana.

General Technical Data

I- Products- Lead and Zinc Concentrates- Heavy Mn. vein filling, of Rhodonite and Rhodocrosite.
2- Iron Mask mining claim, and other contiguous claims. 40-50 ton mill Lead Zinc flotation.
a- 700 feet of shafts. 25,000.00 Sq.Ft. of stopes.
b- 3000 feet of drifts and X cuts.
c- 2500 feet of X cut tunnel.
D- 100 feet of winze below tunnel level.
Winze is full of water below tunnel level. Makes 10-30 Gal. per minute in winze. 30-40- Gal water makes in shear zone outside vein, on East slope of hill.

3- a- 5-Miles West of Townsend, Mont. 6Miles of road.
b- Hassell Mining Dist.
c- T.7 N., Sec.19, Range I East. Principal Meridian.
d- Broadwater Co., State-Montana.
4- Property not in operation.
b- Property(Iron Mask Claim) under lease to Broadwater Zinc and Lead. 7 contiguous claims and 20 Acres Deeded ground owned by B.Z.and L. including X cut Tunnel.
5- Production by B.Z.and L. 1942- 1943-1944- 1945-1946-1947-1949. Future production depends on financing of developement and mining.
6- Broadwater Zinc was formed in 1942, as a partnership, after a report by P.M.Mosier on The Iron Mask mine. The report was substantiated in all respects by the findings as mining was carried on in the property.

b- The Mill ,all buildings and the entire assets of the company are owned by Dr. R.G.Bayles of Bozeman, and P.M.Mosier of Townsend. P.M.Mosier acts as Manager, 40 years experience in mining and milling thru every capacity.
7- The history of property dates back to 1890 and before. Rich surface Lead ores(oxide) were mined thru two shafts to a depth of 300 feet. Ore was mined for a length of 500 feet and 200 feet in depth continuously, in one or more splits of the vein. Then the ore took definit form , and assumed two shoots, The inside one and the outside one. See Map. The inside shoot was split to a depth of 500 feet.
Water conditions hampered the work from the surface as depth was obtained and in 1914 the long X cut tunnel was started from the East slope of the mountain ridge to tap the vein. This was carried thru , but the upraise to tap the lowest shaft failed to connect in time, and the company went broke.
The property was idle for several years and then was worked intermittently by leasers from the surface. These leasers connected thru into the upraise from the tunnel. They worked the spots of ore that were high in Lead and low in Zinc. As Zinc predominated this was limited.
In 1942 the Broadwater Zinc and Lead was formed and took over a lease on The Iron Mask claim and erected a 40-50-ton mill, and carrying power to the property, from the Montana Power company.
While the mill was being erected, the main shaft caved and plugged off the air to the tunnel workings. Eight months of work was necessary to open up circulation. This kept the mill idle as very little shooting could be done. The oxide ores in the workings and the dumps were shipped crude and not milled. About 160 -60ton carloads of crude were shipped. The ore milled above the tunnel level always had considerable amounts of oxides in it. Tailings losses were quite large, Separation of the Lead and Zinc was good. Concentrates were of good grade.
In 1946 on the suspension of the Premiums, the property was leased to a group of miners who were to sink the winze on the No.8 chute of zinc ore. They sunk 60 feet in 4 months and had considerable internal quarrelling, so that the work accomplished was not great. In 1947 on the suspension of the premiums on Lead and Zinc, the property was closed. In 1948 the prices had risen to a point where the operation could be thought to be profitable, and an electric battery Locomotive was purchased and equipment to carry the power into the long tunnel. Due to the policy of the Various Govt. Depts. of protecting the foreign mining interests of the larger companies, the prices of Lead and Zinc were driven down by large purchases of foreign metal, and the investments of capital to develope the mine and produce were lost as no company could operate on the low prices of 1949. With all of the small producers closed

and driven off the labor market,the rise in prices that immediately ensumed found the B.Z.and L. broke. Also the confidence in the public who invest in Mining ventures was badly shaken in the future of the industry, as it appeared that Domestic Mining , was to be penalized thru Govt. control of prices and thus be forced to seek Govt. financing. There is in the winze above the 100 level about 2000 tons of average Lead Zinc ore blocked out. However this ore should not be taken out until enuf ore has been developed to keep the mill going at capacity and thus cut the costs of mining and milling. There should be 75,000 to 100,000 tons of ore left in the property below the tunnel level.

7-b, There are no properties within two miles of the mine. The Park Dist. mines on the N. fork of Indian creek are the closest.
7-c, There are no reports on the property that I know of. An A.S.and R. engineer sampled the No. 4 and the No. 7 ore shoots on the tunnel level in 1948. The winze was not available.
The No. 4 ore shoot 10 samples Pb.4.40,Zn.9,14,Ag.2.20- Length 120 Ft. width 3.30
The No. 7 ore shoot.Length 17 Ft. Width 1.77,Ag. 9.95- Pb 15.20-Zn3.89
This shoot shows only scattered ore in the back of the drift, and is undoubtedly the top of a Lead lenze, such as occurs above.
The winze section is shown on the map.

12- The ore deposits are contained in either lenticular masses of very good Lead Zinc ore, or in parallel narrow fractures where there is a sheeted condition over widths to as much as 14 feet.
Very little pyrite is found in the ore bodies and above the tunnel level it was unusual to see any pieces of pyrite larger than a bean. In the lowest level there is now at times small chunks of pyrite which seems to be getting more prevalent. The wall of the vein has always shown a bout 10% pyrite in very smalldiffused particles. The Lead and Zinc mostly is not intimately mixed and appears to have been deposited at different periods, as very high grade streaks of both Lead and Zinc are found in parallel fractures.
The No.8 ore shoot and the No. 4 Ore shoot extend from the tunnel to the surface. There is no indication that they should not go to depth.
The No. 8 ore shoot has increased in length from 55 feet at the tunnel levàlto 100 feet on the 100 Ft. winze level, and it is lengthening and raking North. Between this ore shoot and the winze, another shoot of ore is exposed on the floor of the drift. This shoot is Hi grade Lead and averages ove 1.4 Ft. in width and it does not show in the top of the drift. It should get longer and wider and is definitely a shoot of Lead.
The No. 7 shoot of ore shows for 17 feet in the bottom of the tunnel level and is getting better as it goes down. It occured in the back of the tunnel in scattered spots of Lead Zinc, and the values disappeared as it was prospected upward.
The vein filling where not entirely Lead and Zinc and highly oxidized, is mostly Rhodocrosite and Rhodonite with minor parts of calcite and barite.
There are no intrusive rocks that I know of within 2 miles of the mine and the andesite flows in which the fracturing occurs should be at least 600 feet lower than the tunnel level. From the strength and the size of the ore there is great possibility that the ore will extend to a depth of 500 feet and possibly to the underlying shale and limestone. As the water that makes in the lowest level is alkaline it can be presumed that it is the proximity of the underlying limestone that produces this condition.

b-2, This is on separate sheets of paper.

13- Road is all weather road from Townsend, rough and steep.
14- Water supply is from the tunnel. It is sufficient for a 50 ton mill and varies little. Lowest in April and May. Depending on Fall rainfall
15- Power is from the Montana power Co. Transformers at mine are capable of handling all capacity,needed. If the 300 Ft. G.D. compressor now at the tunnels mouth is moved into the mine, then additional transformer capacity od 35 K.V.A. will be needed both inside and outside the tunnel.
16- Labor needed.

1- Mine foreman.	$ 350.00	1- Electrician	$ 350.00
2- Hoist men.	12.00	3- Mill operators	12.00
2- Motormen.	12.00	3- Mill helpers	11.00
10- Miners.	12.00	1- Top man	11.00
1- Manager	500.00	1- truck driver	12.00

Full Production

Addenda to M.F.-100, Page 3
Broadwater Zinc and Lead Co.
Townsend, Mont.

12- b 2- Calculation of ore reserves.

Assumed values-Taken from sampling and also from mill head values.

No. 8 ore shoot-	2.0 Oz. Ag.	- 8.0 % Zinc	- 3.0 % Pb.	Width 8 and	5.0 Ft
No. 4 ore shoot-	1.76 " "	- 7.31% "	- 3.55% "	"	3.95
No.8,S. shoot	- 3.50 " "	- 5.0 % "	-15.00% "	"	3.00
No.7, ore shoot-	4.97 " "	- 1.90% "	- 7.60% "	"	3.54

With Milling losses of .50Ag. -.90 Zn.- .50 Pb. and with a net on smelter returns of Silver$.80- Zinc ,11.cents- Lead 14.5 cents

Dollarvalues of ore

No. 8-	Ag.	$ 1.20 - Zn.	$ 15.62	-Pb.	$ 7.25	Total value	$ 24.07
No.4 -	Ag.	$ 1.01 - Zn.	$ 14.10	-Pb.	$ 8.95	Total Value	$ 23.96
No.8 S.	Ag.	$ 2.40-# Zn.	$ 9.02	-Pb.	$41.90	Total Value	$ 53.32
No.7	Ag.	$ 3.94 - Zn.	$ 2.20	-Pb.	$26.73	Total Value	$ 26.73

Calculation of tonnage

1200 tons of Provenore in No. 8 shhot above the 100 winze level

No.8 shoot- 50 x8 x100Ft. depth----	40,000	Cu Ft.		
75 x 5 x 100 "	37,500	" "		
	77,500	" "	8,611	Tons
No. 4 shoot-120 x3.95 x200 "	142,200	" "	10,533	"
No.8South shhot 50x 3x50 "	7,500	" "	835	"
No 7 shoot -17 x 3.54 x 50 "	3,009	" "	376	"
Total estimated tons			20,355	"

No. 8 shoot 8,611 tons @ 24.07---	$ 207,266.00
No. 8 S.Shoot 835 tons @ 53.32---	44,522.00
No. 7 shoot 376 tons @ 26.73 --	10,050.00
Proven ore No.8 1200 tons @ 24.07	28,884.00
Total value from the 200Level to tunnel	$ 290,742.00
Developement costs to 300 level	60,000.00
	$ 230,742.00
Less Mining Costs 11,022tons @$11.00	121,242.00
Possible assured profit above 200 level	109,500.00

Using developement to the 300 level. No estimate made on ore below 200

Developement of No.4 ore shhot.

220 Ft. of winze	$ 15,000.00	This to be started after No. 8 developement is finished.
500 Ft. of Drift	10,000.00	
Miscl. expense	10,000.00	
	$ 35,000.00	

No. 4 shoot above 200 level. 10,533 tons @ $ 23.96 ---	$253,370.00
Less 10,533 tons mining cost @ $11.00	115,863.00
	$137,507.00
Less developement costs	35,000.00
Posible net profit in No. 4 shoot above the 200	$ 102,507.00
Possible net profit in No.8 and No 7 " ""	109,500.00
Total to be expected.	$ 212,007.00

For the original deveopement costs, several thousand tons of ore should be shown below the 200 level in the No. 8 shoot and the No. 8 South shoot which is the Lead shoot showing in the 100 drift just N. of the winze. Also the No. 7 shoot of ore should developememany times the tonnage given. Shipping lead ore should be found as it has been in the past , in some of the lead lenzes .

I2-9,6,- Total ore or Mineral Reserves

Ore	Estimated Tons	Mineral content per ton	Gross Value Ton	Recoverable unit value-ton	Cost per ton
Proven	I200	Ag. 2.0 Zn. 8.00 Pb. 3.00	$ 40.00	$ 24.07	$ II.00
Probable above 200 Winze level					
No.8 shoot	8611	Ag. 2.0 Zn. 8.00 Pb. 3.00	$ 40.00	$ 24.07	$ II.00
No.8.South	835	Ag. 3.50 Zn. 5.00 Pb.I5.00	$ 7I.65	$ 53.32	$ II.00
No.7 Shoot	376	Ag. 9.95 Zn. 3.89 Pb.I5.20	$ 74.26	$ 26.73	$ II.00
No.4 Shoot	I0533	Ag. 2.20 Zn. 9.I4 Pb. 4.40	$ 48.93	$ 23.96	$ II.00
Possible ore between 200-300 Winze Level.					
No. 8 shoot	8600		$ 40.00	$ 24.07	$ II.00
No. 4 shoot	5000		$ 48.93	$ 23.96	$ II.00
Other ore	3000		$ 70.00	$ 30.00	$ II.00
	38I50				

There has been no diminishing of value as depth is reached, and the vein apears to be opening up below the barren tight block on the tunnel level.

I0- Production Total of Broadwater Zinc and Lead.

9,600 tons crude shipped Av. content 4.0 Pb. II.0 Zn.
36,000 tons ore milled. " " 3.9 Pb. 8.50 "
I,800,000 Lbs. Lead produced
4,200,000 Lbs. Zinc "
I948- No Production
I949-I2000 tons milled 44.6 tons Pb. Conc(58.0 Pb.-I4% Zn.)
II4.0 Tons Zn. Conc.(53.45 % Zn.-2.0 Pb.)

I950- No production.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)	Separate	Sheet			
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

The Broadwater Zinc & Lead (Name of company) By P. M. Mosier (Signature of authorized official)

May 20, 1951 (Date) Manager (Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. Dma-274

Date received 5/28/51

The Broadwater Zinc & Lead
Box 59, Townsend, Mont

Name and address of applicant

Date May 20, 1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA On Separate Sheets

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production 6

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

16—63792-1

MAY 21 1951

5

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
Dr. R. G. Bayles Bozeman-Mont.	Partner	None	$100,000.00	60%		None	
P. M. Mogier Townsend-Mont	Partner Manager	None	10,000.00	40%		None	
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)		Separate Sheet			
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. 10-50 tons daily

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

Separate Sheet.

Addenda to M.F.-I00,Page I
Broadwater Zinc and Lead Co.
Townsend, Montana.

General Technical Data

I- Products- Lead and Zinc Concentrates- Heavy Mn. vein filling,of Rhodonite and Rhodocrosite.
2- Iron Mask mining claim, and other contiguous claims.40-50 ton mill Lead Zinc flotation.
a- 700 feet of shafts. 25,000.00 Sq.Ft. of stopes.
b- 3000 feet of drifts and X cuts.
c- 2500 feet of X cut tunnel.
D- I00 feet of winze below tunnel level.
Winze is full of water below tunnel level. Makes I0-30 Gal. per minute in winze. 30-40- Gal water makes in shear zone outside vein, on East slope of hill.

3- a- 5-Miles West of Townsend, Mont.6Miles of road.
b- Hassell Mining Dist.
c- T.7 N.,Sec.I9, Range I East. Principal Meridian.
d- Broadwater Co., State-Montana.
4- Property not in operation.
b- Property(Iron Mask Claim) under lease to Broadwater Zinc and Lead. 7 contiguous claims and 80 Acres Deeded ground owned by B.Z.and L. including X cut Tunnel.
5- Production by B.Z.and L. I942- I943-I944- I945-I946-I947-I949. Future production depends on financing of developement and mining.
6- Broadwater Zinc was formed in I942, as a partnership, after a report by P.M.Mosier on The Iron Mask mine. The report was substantiated in all respects by the findings as mining was carried on in the property.

b- The Mill ,all buildings and the entire assets of the company are owned by Dr. R.G.Bayles of Bozeman, and P.M.Mosier of Townsend. P.M.Mosier acts as Manager, 40 years experience in mining and milling thru every capacity.
7- The history of property dates back to I890 and before. Rich surface Lead ores(oxide) were mined thru two shafts to a depth of 300 feet. Ore was mined for a length of 500 feet and 200 feet in depth continuously, in one or more splits of the vein. Then the ore took definit form , and assumed two shoots,The inside one and the outside one. See Map. The inside shoot was split to a depth of 500 feet.
Water conditions hampered the work from the surface as depth was obtained and in I9I4 the long X cut tunnel was started from the East slope of the mountain ridge to tap the vein. This was carried thru , but the upraise to tap the lowest shaft failed to connect in time, and the company went broke.
The property was idle for several years and then was worked intermittently by leasers from the surface. These leasers connected thru into the upraise from the tunnel. They worked the spots of ore that were high in Lead and low in Zinc. As Zinc predominated this was limited.
In I942 the Broadwater Zinc and Lead was formed and took over a lease on The Iron Mask claim and erected a 40-50-ton mill, and carrying power to the property, from the Montana Power company.
While the mill was being erected, the main shaft caved and plugged off the air to the tunnel workings. Eight months of work was neceassry to open up circulation. This kept the mill idle as very little shooting could be done. The oxide ores in the workings and the dumps were shipped crude and not milled. About I60 -60ton carloads of crude were shipped. The ore milled above the tunnel level always had considerable amounts of oxides in it. Tailings losses were quite large, Separation of the Lead and Zinc was good. Concentrates were of good grade.
In I946 on the suspension of the Premiums, the property was leased to a group of miners who were to sink the winze on the No.8 chute of zinc ore. They sunk 60 feet in 4 months and had considerable internal quarrelling, so that the work accomplished was not great. In I947 on the suspension of the premiums on Lead and Zinc, the property was closed. In I948 the prices had risen to a point where the operation could be thought to be profitable, and an electric battery Locomotive was purchased and equipment to carry the power into the long tunnel. Due to the policy of the Various Govt. Depts. of protecting the foreign mining interests of the larger companies, the prices of Lead and Zinc were driven down by large purchases of foreign metal, and the investments of capital to develope the mine and produce were lost as no company could operate on the low prices of I949. With all of the small producers closed

and driven off the labor market, the rise in prices that immediately ensumed found the B.Z. and L. broke. Also the confidence in the public who invest in Mining ventures was badly shaken in the future of the industry, as it appeared that Domestic Mining , was to be penalized thru Govt. control of prices and thus be forced to seek Govt. financing. There is in the winze above the I00 level about 2000 tons of average Lead Zinc ore blocked out. However this ore should not be taken out until enuf ore has been developed to keep the mill going at capacity and thus cut the costs of mining and milling. There should be 75,000 to I00,000 tons of ore left in the property below the tunnel level.

7-b, There are no properties within two miles of the mine. The Park Dist. mines on the N. fork of Indian creek are the closest.
7-c, There are no reports on the property that I know of. An A.S. and R. engineer sampled the No. 4 and the No. 7 ore shoots on the tunnel level in I948. The winze was not available.
The No. 4 ore shoot I0 samples Pb.4.40, Zn.9,I4, Ag.2.20- Length I20 Ft. width 3.30
The No. 7 ore shoot. Length I7 Ft. Width I.77, Ag. 9.95- Pb I5.20-Zn3.89
This shoot shows only scattered ore in the back of the drift, and is undoubtedly the top of a Lead lenze, such as occurs above.
The winze section is shown on the map.

I2- The ore deposits are contained in either lenticular masses of very good Lead Zinc ore, or in parallel narrow fractures where there is a sheeted condition over widths to as much as I4 feet.
Very little pyrite is found in the ore bodies and above the tunnel level it was unusual to see any pieces of pyrite larger than a bean. In the lowest level there is now at times small chunks of pyrite which seems to be getting more prevalent. The wall of the vein has always shown a bout I0% pyrite in very smalldiffused particles. The Lead and Zinc mostly is not intimately mixed and appears to have been deposited at different periods, as very high grade streaks of both Lead and Zinc are found in parallel fractures.
The No.8 ore shoot and the No. 4 Ore shoot extend from the tunnel to the surface. There is no indication that they should not go to depth.
The No. 8 ore shoot has increased in length from 55 feet at the tunnel level to I00 feet on the I00 Ft. winze level, and it is lengthening and raking North. Between this ore shoot and the winze, another shoot of ore is exposed on the floor of the drift. This shoot is Hi grade Lead and averages ove I.4 Ft. in width and it does not show in the top of the drift. It should get longer and wider and is definitely a shoot of Lead.
The No. 7 shoot of ore shows for I7 feet in the bottom of the tunnel level and is getting better as it goes down. It occured in the back of the tunnel in scattered spots of Lead Zinc, and the values disappeared as it was prospected upward.
The vein filling where not entirely Lead and Zinc and highly oxidized, is mostly Rhodocrosite and Rhodonite with minor parts of calcite and barite.
There are no intrusive rocks that I know of within 2 miles of the mine and the andesite flows in which the fracturing occurs should be at least 600 feet lower than the tunnel level. From the strength and the size of the ore there is great possibility that the ore will extend to a depth of 500 feet and possibly to the underlying shale and limestone. As the water that makes in the lowest level is alkaline it can be presumed that it is the proximity of the underlying limestone that produces this condition.

b-2, This is on separate sheets of paper.

I3- Road is all weather road from Townsend, rough and steep.
I4- Water supply is from the tunnel. It is sufficient for a 50 ton mill and varies little. Lowest in April and May. Depending on Fall rainfall
I5- Power is from the Montana power Co. Transformers at mine are capable of handling all capacity, needed. If the 300 Ft. G.D. compressor now at the tunnels mouth is moved into the mine, then additional transformer capacity od 35 K.V.A. will be needed both inside and outside the tunnel.
I6- Labor needed.

I- Mine foreman.	$ 350.00	I- Electrician	$ 350.00	Full Production
2- Hoist men.	$ I2.00	3- Mill operators	I2.00	
2- Motormen.	I2.00	3- Mill helpers	II.00	
I0- Miners.	I2.00	I- Top man	II.00	
I- Manager	500.00	I- truck driver	I2.00	

Addenda to M.F.-I00, Page 3
Broadwater Zinc and Lead Co.
Townsend, Mont..

I2- b 2- Calculation of ore reserves.

Assumed values-Taken from sampling and also from mill head values.

No. 8 ore shoot-	2.0 Oz. Ag.	-	8.0 % Zinc	-	3.0 % Pb.	Width	8 and	5.0 ft
No. 4 ore shoot-	I.76 " "	-	7.3I% "	-	3.55% "	"		3.95
No.8,S. shoot	- 3.50 " "	-	5.0 % "	-	I5.00% "	"		3.00
No.7, ore shoot-	4.97 " "	-	I.90% "	-	7.60% "	"		3.54

With Milling losses of .50Ag. -.90 Zn.- .50 Pb. and with a net on smelter returns of Silver$.80- Zinc ,II.cents- Lead I4.5 cents

Dollarvalues of ore

No. 8-	Ag.	$ I.20 - Zn.	$ I5.62	-Pb.	$ 7.25	Total value	$ 24.07
No.4 -	Ag.	$ I.0I - Zn.	$ I4.I0	-Pb.	$ 8.95	Total Value	$ 23.96
No.8 S.	Ag.	$ 2.40- Zn.	$ 9.02	-Pb.	$4I.90	Total Value	$ 53.32
No.7	Ag.	$ 3.94 - Zn.	$ 2.20	-Pb.	$26.73	Total Value	$ 26.73

Calculation of tonnage

I200 tons of Provenore in No. 8 shhot above the I00 winze level

No.8 shoot- 50 x8 xI00Ft. depth----	40,000	Cu Ft.	
75 x 5 x I00 "	37,500	" "	
	77,500	" "	8,6II Tons
No. 4 shoot-I20 x3.95 x200 "	I42,200	" "	I0,533 "
No.8South shhot 50x 3x50 "	7,500	" "	835 "
No 7 shoot -I7 x 3.54 x 50 "	3,009	" "	376 "
Total estimated tons			20,355 "

No. 8 shoot 8,6II tons @ 24.07---	$ 207,266.00
No. 8 S.Shoot 835 tons @ 53.32---	44,522.00
No. 7 shoot 376 tons @ 26.73 --	I0,050.00
Proven ore No.8 I200 tons @ 24.07	28,884.00
Total value from the 200Level to tunnel	$ 290,742.00
Developement costs to 300 level	60,000.00
	$ 230,742.00
Less Mining Costs II,022tons @$II.00	I2I,242.00
Possible assured profit above 200 level	I09,500.00

Using developement to the 300 level. No estimate made on ore below 200

Developement of No. ore shhot.

220 Ft. of winze	$ I5,000.00	This to be started after No. 8 developement is finished.
500 Ft. of Drift	I0,000.00	
Miscl. expense	I0,000.00	
	$ 35,000.00	

No. 4 shoot above 200 level. I0,533 tons @ $ 23.96 ---	$253,370.00
Less I0,533 tons mining cost @ $II.00	II5,863.00
	$I37,507.00
Less developement costs	35,000.00
Possible net profit in No. 4 shoot above the 200	$ I02,507.00
Possible net profit in No.8 and No 7 " "	I09,500.00
Total to be expected.	$ 2I2,007.00

For the original deveopement costs, several thousand tons of ore should be shown below the 200 level in the No. 8 shoot and the No. 8 South shoot which is the Lead shoot showing in the I00 drift just N. of the winze. Also the No. 7 shoot of ore should developemany times the tonnage given. Shipping lead ore should be found as it has been in the past , in some of the lead lenzes .

I2-c,6,- Total ore or Mineral Reserves

Ore	Estimated Tons	Mineral content per ton	Gross Value Ton	Recoverable unit value-ton	Cost per ton
Proven	I200	Ag. 2.0 Zn. 8.00 Pb. 3.00	$ 40.00	$ 24.07	$ II.00
Probable above 200 Winze level					
No.8 shoot	86II	Ag. 2.0 Zn. 8.00 Pb. 3.00	$ 40.00	$ 24.07	$ II.00
No.8.South	835	Ag. 3.50 Zn. 5.00 Pb.I5.00	$ 7I.65	$ 53.32	$ II.00
No.7 Shoot	376	Ag. 9.95 Zn. 3.89 Pb.I5.20	$ 74.26	$ 26.73	$ II.00
No.4 Shoot	I0533	Ag. 2.20 Zn. 9.I4 Pb. 4.40	$ 48.93	$ 23.96	$ II.00
Possible ore between 200-300 Winze Level.					
No. 8 shoot	8600		$ 40.00	$ 24.07	$ II.00
No. 4 shoot	5000		$ 48.93	$ 23.96	$ II.00
Other ore	3000		$ 70.00	$ 30.00	$ II.00
Very Low Estimate	38I50				

There has been no diminishing of value as depth is reached, and the vein apears to be opening up below the barren tight block on the tunnel level.

IO- Production Total of Broadwater Zinc and Lead

9,600 tons crude shipped Av. content 4.0 Pb. II.0 Zn.
36,000 tons ore milled. " " 3.9 Pb. 8.50 "
I,800,000 Lbs. Lead produced
4,200,000 Lbs. Zinc "
I948- No Production
I949-I2000 tons milled 44.6 tons Pb. Conc(58.0 Pb.-I4% Zn.)
II4.0 Tons Zn. Conc.(53.45 % Zn.-2.0 Pb.)

I950- No production.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)	Separate Sheet				
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities: Sent In Before

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

The Broadwater Zinc & Lead (Name of company) By P. M. Mosier (Signature of authorized official)

May 20, 1957 (Date) Manager (Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. Dma-274

Date received 5/28/51

The Broadwater Zinc and Lead
Box.59, Townsend, Montana

Name and address of applicant

Date May 20, 1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) ~~XXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX zation Deduction) of Internal Revenue Code, 1950,~~ (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (~~6~~ 5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA On Separate Sheets

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   - (*a*) What are the chief mine, mill, or smelter products?
   - (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   - (*a*) Linear feet of shafts.
   - (*b*) Linear feet of drifts and crosscuts.
   - (*c*) Linear feet of tunnels or adits.
   - (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   - (*a*) Distance and direction from nearest town and shipping point.
   - (*b*) Mining district.
   - (*c*) Township, Section, Range.
   - (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.

   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production ____________

   If not in production or operation, estimated date when production will begin ____________
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   - (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   - (*b*) State briefly the known history and production of adjoining and neighboring properties.
   - (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
Dr. R.G.Bayles Bozeman- Mont.	Partner		$100.000	60%		None	
P.M.Mosier Townsend, Mont.	Manager Partner		10,000	40%		None	
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)		On separate sheet			
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. 40- 50 tons per day

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

On separate sheet

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In 1942 the Broadwater Zinc and Lead was formed and took over a lease on The Iron Mask claim and erected a 40-50-ton mill, and carrying power to the property, from the Montana Power company.
While the mill was being erected, the main shaft caved and plugged off the air to the tunnel workings. Eight months of work was necessary to open up circulation. This kept the mill idle as very little shooting could be done. The oxide ores in the workings and the dumps were shipped crude and not milled. About 160 -60ton carloads of crude were shipped. The ore milled above the tunnel level always had considerable amounts of oxides in it. Tailings losses were quite large, Separation of the Lead and Zinc was good. Concentrates were of good grade.
In 1946 on the suspension of the Premiums, the property was leased to a group of miners who were to sink the winze on the No.8 chute of zinc ore. They sunk 60 feet in 4 months and had considerable internal quarrelling, so that the work accomplished was not great. In 1947 on the suspension of the premiums on Lead and Zinc, the property was closed. In 1948 the prices had risen to a point where the operation could be thought to be profitable, and an electric battery Locomotive was purchased and equipment to carry the power into the long tunnel. Due to the policy of the Various Govt. Depts. of protecting the foreign mining interests of the larger companies, the prices of Lead and Zinc were driven down by large purchases of foreign metal, and the investments of capital to develope the mine and produce were lost as no company could operate on the low prices of 1949. With all of the small producers closed

and driven off the labor market,the rise in prices that immediately ensumed found the B.Z.and L. broke. Also the confidence in the public who invest in Mining ventures was badly shaken in the future of the industry, as it appeared that Domestic Mining , was to be penalized thru Govt. control of prices and thus be forced to seek Govt. financing. There is in the winze above the 100 level about 2000 tons of average Lead Zinc ore blocked out. However this ore should not be taken out until enuf ore has been developed to keep the mill going at capacity and thus cut the costs of mining and milling. There should be 75,000 to 100,000 tons of ore left in the property below the tunnel level.

7-b, There are no properties within two miles of the mine. The Park Dist. mines on the N. fork of Indian creek are the closest.
7-c, There are no reports on the property that I know of. An A.S.and R. engineer sampled the No. 4 and the No. 7 ore shoots on the tunnel level in 1948. The winze was not available.
The No. 4 ore shoot 10 samples Pb.4.40,Zn.9,14,Ag.2.20- Length 120 Ft. width 3.30
The No. 7 ore shoot.Length 17 Ft. Width 1.77,Ag. 9.95- Pb 15.20-Zn3.89
This shoot shows only scattered ore in the back of the drift, and is undoubtedly the top of a Lead lenze, such as occurs above.
The winze section is shown on the map.

12- The ore deposits are contained in either lenticular masses of very good Lead Zinc ore, or in parallel narrow fractures where there is a sheeted condition over widths to as much as 14 feet.
Very little pyrite is found in the ore bodies and above the tunnel level it was unusual to see any pieces of pyrite larger than a bean. In the lowest level there is now at times small chunks of pyrite which seems to be getting more prevalent. The wall of the vein has always shown a bout 10% pyrite in very smalldiffused particles. The Lead and Zinc mostly is not intimately mixed and appears to have been deposited at different periods, as very high grade streaks of both Lead and Zinc are found in parallel fractures.
The No.8 ore shoot and the No. 4 Ore shoot extend from the tunnel to the surface. There is no indication that they should not go to depth.
The No. 8 ore shoot has increased in length from 55 feet at the tunnel levàlto 100 feet on the 100 Ft. winze level, and it is lengthening and raking North. Between this ore shoot and the winze, another shoot of ore is exposed on the floor of the drift. This shoot is Hi grade Lead and averages ove 1.4 Ft. in width and it does not show in the top of the drift. It should get longer and wider and is definitely a shoot of Lead.
The No. 7 shoot of ore shows for 17 feet in the botton of the tunnel level and is getting better as it goes down. It occured in the back of the tunnel in scattered spots of Lead Zinc, and the values disappeared as it was prospected upward.
The vein filling where not entirely Lead and Zinc and highly oxidized, is mostly Rhodocrosite and Rhodonite with minor parts of calcite and barite.
There are no intrusive rocks that I know of within 2 miles of the mine and the andesite flows in which the fracturing occurs should be at least 600 feet lower than the tunnel level. From the strength and the size of the ore there is great possibility that the ore will extend to a depth of 500 feet and possibly to the underlying shale and limestone. As the water that makes in the lowest level is alkaline it can be presumed that it is the proximity of the underlying limestone that produces this condition.

b-2, This is on separate sheets of paper.

13- Road is all weather road from Townsend, rough and steep.
14- Water supply is from the tunnel. It is sufficient for a 50 ton mill and varies little. Lowest in April and May. Depending on Fall rainfall
15- Power is from the Montana power Co. Transformers at mine are capable of handling all capacity,needed. If the 300 Ft. C.D. compressor now at the tunnels mouth is moved into the mine, then additional transformer capacity od 35 K.V.A. will be needed both inside and outside the tunnel.
16- Labor needed.

1- Mine foreman.	$ 350.00	1- Electrician	$ 350.00
2- Hoist men.	12.00	3- Mill operators	12.00
2- Motormen.	12.00	3- Mill helpers	11.00
10- Miners.	12.00	1- Top man	11.00
1- Manager	500.00	1- truck driver	12.00

Addenda to M.F. -I00, Page 4
Broadwater Zinc and Lead Co.
Townsend, Mont.

I2-c,6,- Total ore or Mineral Reserves

Ore	Estimated Tons	Mineral content per ton	Gross Value Ton	Recoverable unit value-ton	Cost per ton
Proven	I200	Ag. 2.0 Zn. 8.00 Pb. 3.00	$ 40.00	$ 24.07	$ II.00
Probable above 200 Winze level					
No.8 shoot	86II	Ag. 2.0 Zn. 8.00 Pb. 3.00	$ 40.00	$ 24.07	$ II.00
No.8.South	835	Ag. 3.50 Zn. 5.00 Pb.I5.00	$ 7I.65	$ 53.32	$ II.00
No.7 Shoot	376	Ag. 9.95 Zn. 3.89 Pb.I5.20	$ 74.26	$ 26.73	$ II.00
No.4 Shoot	I0533	Ag. 2.20 Zn. 9.I4 Pb. 4.40	$ 48.93	$ 23.96	$ II.00
Possible ore between 200-300 Winze Level.					
No. 8 shoot	8600		$ 40.00	$ 24.07	$ II.00
No. 4 shoot	5000		$ 48.93	$ 23.96	$ II.00
Other ore	3000		$ 70.00	$ 30.00	$ II.00
	38I50				

There has been no diminishing of value as depth is reached, and the vein apears to be opening up below the barren tight block on the tunnel level.

I0- Production Total of Broadwater Zinc and Lead.

9,600 tons crude shipped Av. content 4.0 Pb. II.0 Zn.
36,000 tons ore milled. " " 3.9 Pb. 8.50 "
I,800,000 Lbs. Lead produced
4,200,000 Lbs. Zinc "
I948- No Production
I949-I2000 Tons milled 44.6 tons Pb. Conc(58.0 Pb.-I4% Zn.)
II4.0 Tons Zn. Conc.(53.45 % Zn.-2.0 Pb.)

I950- No production.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)	On separate sheet				
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

The Broadwater Zinc and Lead
(Name of company)

By P. M. Mosier
(Signature of authorized official)

May 20, 1951
(Date)

Manager
(Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

[illegible] 1, 1951

[illegible] -74

[illegible] Fooler
[illegible]
[illegible]

Dear Mr. [illegible]:

In reply to your letter of April [illegible].

In order that we may be sure to process your application ([illegible]) more readily, would you please fill out the enclosed form [illegible] and return it to us [illegible] as soon as you have definitely decided [illegible] in the [illegible] program.

Very truly yours,

Otto Herres

[illegible], Chief
[illegible] Branch

[illegible]
[illegible]/51
Copies to: [illegible] Weissenborn Region II (2)
Chief, Lead-Zinc Br.
[illegible] McKnight
[illegible] Moon
[illegible] Cote
[illegible] Strobel
[illegible] Lyon
Files

Memorandum P. Simonel

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

So. 157 Howard Street
Spokane 8, Washington

March 29, 1951

dma
274
Hurro
4/3/51

To: Otto Herres, Chief, Lead-Zinc Branch, DMA

Through: Operating Committee and
Director Supply Division

From: Executive Officer of Field Team, Region II

Subject: Application of the Broadwater Zinc and Lead Company, Townsend, Montana. DMA Docket 274

A letter from your office, dated February 21, 1951 directed the DMA Field Team to conduct a geological examination of the Iron Mask mine, Broadwater Zinc and Lead Company, Townsend, Montana.

Mr. P. M. Mosier, who submitted the Broadwater Zinc and Lead application, was interviewed at his home in Townsend, Montana, by Thor Kiilsgaard and Wayne Roberts of the DMA Field Team on March 19, 1951. At that interview Mr. Mosier informed the field team members that the adit entry to the mine workings was caved, and that the ore blocks on which the application was based were flooded and could not be examined. Mr. Mosier stated that the company was not in favor of matching funds with the Government on an exploration program, and furthermore, that without a Government loan of some kind, the mine workings could not be made available for examination.

An examination of the longitudinal section of the Iron Mask mine shows that there is approximately 500 tons of zinc-lead ore remaining above the 100-foot level, which would be available for mining if the flooded workings were dewatered. Any other minable ore would depend upon future downward exploration work in the northern or southern ore shoots, and possibly in the intervening area between these two ore shoots. It is possible that several thousand tons of ore now inferred could be developed by sinking the Sp. 8 or North Winze 200 feet below the 100-foot level, as proposed by Mr. Mosier; however, such tonnage is merely suggestive as the workings cannot be examined.

The now flooded 100-foot level and stope above the level were mapped by Mr. Kontis Klepper of the U. S. Geological Survey in 1949 and his field notes corroborate Mosier's description of the vein in those areas.

Mr. Mosier is reputedly an experienced and competent mine operator, and his suggestions as to future mine development should receive consideration.

BUREAU OF MINES
MAY 2

It seems that an exploration contract would be advisable provided that Mr. Motor would go along. For this reason, we would suggest that when the complete details of the forthcoming exploration program, as to possible funds paid by the Government on mining and milling equipment are announced, that Mr. Motor be so informed, and at that time if he is still not interested, that the Broadwater Zinc and Lead application be dropped from consideration.

We are returning herewith the data we have concerning the application of the Broadwater Zinc and Lead Company.

Thor Kilsgaard
For: A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

Enclosures

cc: Lawson P. Jurobol
Glenn C. Reed

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Co. 157 Howard Street
Spokane 8, Washington

March 29, 1951

To: Otto Torres, Chief, Lead-Zinc Branch, DMA

Through: Operating Committee and
Director Supply Division

From: Executive Officer of Field Team, Region XI

Subject: Application of the Broadwater Zinc and Lead Company, Townsend, Montana. DMA Docket 274

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The new flooded 100-foot level and stope above the level were mapped by Mr. Montis Klepper of the U. S. Geological Survey in 1949 and his field notes corroborate Mosier's description of the vein in those areas.

Mr. Mosier is reputedly an experienced and competent mine operator, and his suggestions as to future mine development should receive consideration.

[illegible]

[illegible]

[illegible]

cc: Landon F. Strobel
Glenn C. Reed

February 21, 1951

Memorandum

To: Executive Officer [illegible], [illegible]
Branch [illegible] and Director,
Supply Division

From: [illegible] Branch, [illegible]

Subject: Application of [illegible] Consolidated Mines, Ltd.
The Rochester Zinc and Lead Company
[illegible], Nevada

The application for government assistance submitted by [illegible] on behalf of the Rochester Zinc and Lead [illegible] Company, has been reviewed by the [illegible] Branch, DMA.

The applicants requested a loan of $50,000.00 to develop and [illegible] the mine and mill on the [illegible] property which is located [illegible] of [illegible], [illegible] County. The $50,000.00 to be used as follows:

[illegible] development and operation .... $[illegible]
[illegible] of mill .... $[illegible]
Miscellaneous equipment, insurance, etc. .... $[illegible]

From information accompanying the application there appears to be about [illegible] tons of indicated ore containing [illegible] [illegible] and about [illegible] per ton. The applicants believe it possible to develop [illegible] tons of similar grade. The capacity of the mill is [illegible] tons per 24 hours.

The [illegible] Branch, DMA recommends [illegible] field examination of the property [illegible] and costs.

The [illegible] of the iron [illegible] ore of the [illegible]. [illegible] the [illegible] Bureau of Mines [illegible] oxidized zinc ore bodies, problems [illegible], it is recommended [illegible] geological examination be made of this [illegible] and [illegible] statement of tonnage, grade, mineralogy, etc. be included with the report.

/s/ Otto Herres

[illegible] Chief
Lead-Zinc Branch
Defense Minerals Administration

Approved:
[illegible] Committee

/s C. O. Mitteldorf
Chairman

/s Laurell B. Moore
Member

/s Olaf N. Rove
Member

[illegible]jonsiecp
6-2-31-51

Copies to: Chief Hard-Rock Branch
Geological Survey - [illegible]
J. [illegible] Hodges
[illegible]
2 copies to Executive Officer,
Geological Survey, Region II
Strobel
Mitteldorf
Pilton

February 1, 1951

[illegible]

Referred to
A.E. Weissenborn
Co. 157 Howard St.
Spokane 3, Washington

[illegible] Cooper

[illegible]

Dear Mr. Cooper

[illegible] application under the [illegible] as production [illegible] of 1,[illegible]0 [illegible] have been reviewed by the Land-[illegible] Branch of the Bureau [illegible] administration [illegible] have been referred to [illegible] for [illegible] survey.

[illegible] very truly yours,

for [illegible]

[illegible]

[illegible]:nightingale
2-2/21/51
Copies to: Chief, Land-Size Branch
Geological Survey - Wenright
J. H. Hedges
[illegible] Fote
2 copies to Executive Officer,
Kelsey Field Area, Region [illegible]
Strobel
Nissendorf
Files

LAN[illegible]N F. SI[illegible]

JOSEPH C. O'MAHONEY, WYO., CHAIRMAN
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MILLS ASTIN, CHIEF CLERK

United States Senate

COMMITTEE ON
INTERIOR AND INSULAR AFFAIRS

January 4, 1951

Mr. James Boyd, Administrator
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Boyd:

I am writing you with reference to the Maidwater Zinc and Lead Company application for financial aid under the Defense program.

Although Mr. A. M. Mosier filed with your field office on November 2, 1950, according to the information given to me, the file did not reach Washington until January 3, 1951, and only now has been assigned a docket number (DMA-274).

It seems to me that in such instances the case should be processed in order of its filing date rather than its docket number in all fairness to the applicant.

I am informed by the applicant, Mr. A. M. Mosier of Townsend, Montana, that this property is one of the few in Montana which can rapidly be put into production and I trust it will have your favorable consideration.

Sincerely yours,

1-15-51
Harras for action

DMA-274

Gentlemen:

To supplement the a[illegible] during [illegible] Cleveland [illegible] the machinery and equipment owned by [illegible] Montana.

As you can see we have a considerable quantity of machinery for sale [illegible] all suitable for a 100 ton operation. Some of this equipment is [illegible] machinery dealers at Missoula, who are selling the [illegible] on a commission basis.

As [illegible] only sell this to small [illegible] who are having a hard time financ[illegible] operations it is moving slowly.

We have considerable outstanding accounts that are awaiting [illegible] eration for collection. Due [illegible] our former owners and the knowledge [illegible] we have [illegible] equipment and good [illegible] and I also think [illegible] know, [illegible] are been [illegible] leisure [illegible] for their money.

I [illegible] a co[illegible] will [illegible] these debts and will [illegible] them in [illegible] the listing.

A.E. [illegible] Orn, [illegible] Dave Cr[illegible] Field Bean, [illegible] Spring II, asked me [illegible] sent [illegible] the additional information which I [illegible] oldsmobile, as [illegible] the application had been forwarded to Washington.

Payment can be made [illegible] royalty taken from [illegible], either after or before the [illegible] of 10% is taken for the owners. [illegible] sort of Bonus or [illegible] increase is allowed as in the past [illegible] and Lead, it will [illegible] to be taken after the owners royalty.

Bonus payments [illegible] in the past War helped the small mines who operated better [illegible] increases as they were not subject to Royalty or to excess profits [illegible].

I am already lin[illegible] two small properties who can furnish ore [illegible] supplement the ore [illegible] Le Fromboise Creek, but can not go very far until financial assistance [illegible] given.

Yours very truly,

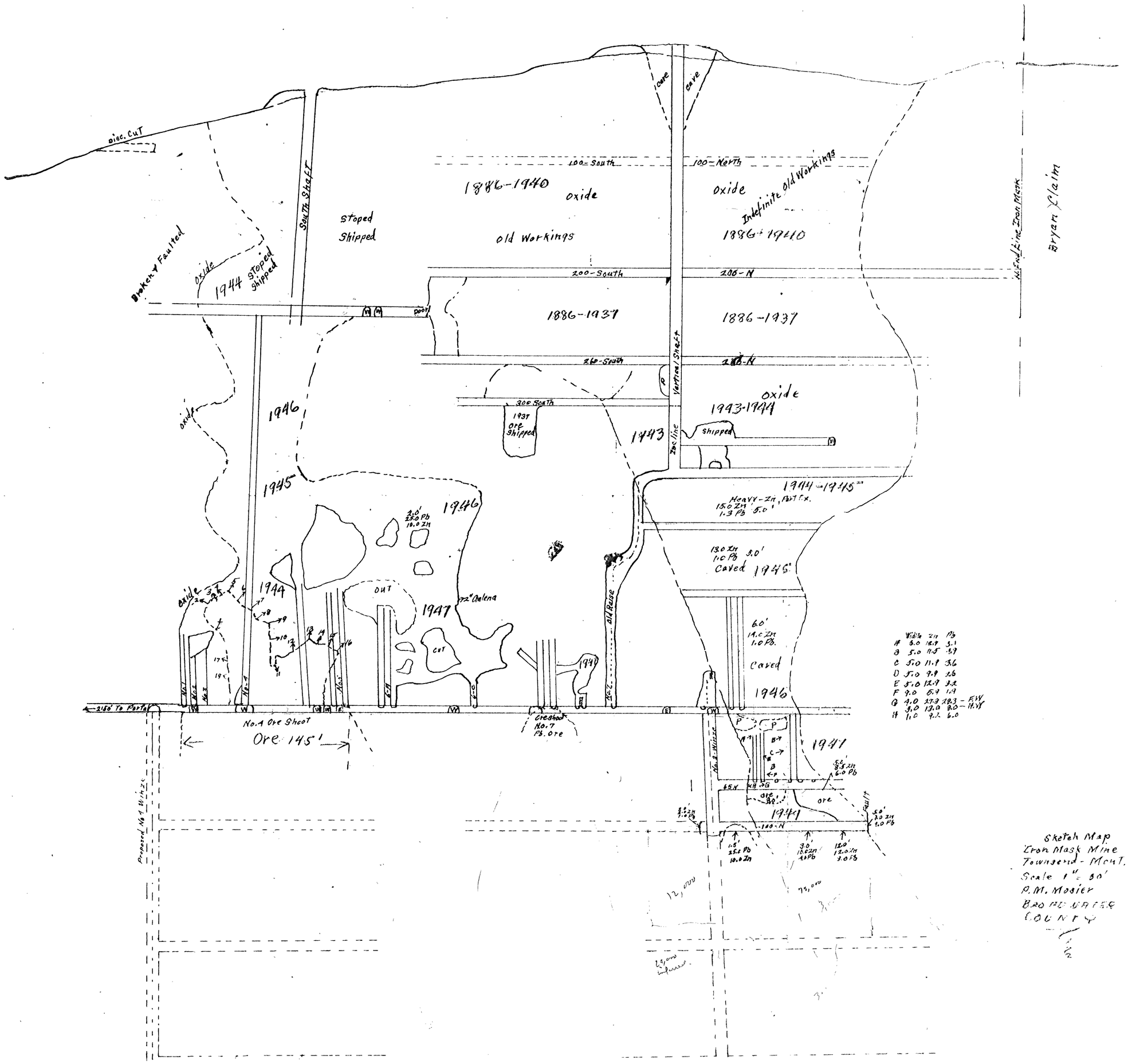
The Broadwater Zinc and Lead
By W.M. Mozier- Partner.
Helena, Mont.

W.M. Mozier

BUREAU OF MINES
WASHINGTON, D.C.
JAN 10 7 36 AM '51

HERRES
1-11-51

DMA-274



Sketch Map
Iron Mask Mine
Townsend - Mont.
Scale 1" = 30'
P.M. Mosier
B.&M. Meriwether
County