Request Number	Text of Request:	Responsible recipient:	Time frame
1.	All documents relating to control or direction of mining operations in Ottawa County by the United States.	All Bureaus and Offices	1/1/1887 to 7/2/2002
2.	Documents sufficient to show the identity of companies or entities that mined lead in Ottawa County.	All Bureaus and Offices	1/1/1887 to 7/2/2002
3.	All documents reflecting the sale or use of mining byproducts by the United States in Ottawa County.	All Bureaus and Offices	1/1/1887 to 7/2/2002
4.	All documents relating to restrictions on the use or sale of mining byproducts imposed by the United States in Ottawa County, including but not limited to the 1997 moratorium on the use of chat instituted by the Bureau of Indian Affairs.	All Bureaus and Offices	1/1/1887 to 7/2/2002
5.	All documents relating to plans for the use of ores mined in Ottawa County for use by or in support of United States military efforts, including but not limited to World War I, World War II, and the Korean war.	All Bureaus and Offices	1/1/1887 to 7/2/2002
6.	All documents relating to the knowledge of the United States regarding the effects of mining byproducts on human health. in Ottawa County	All Bureaus and Offices	1/1/1887 to 7/2/2002
7.	All documents relating to the knowledge of the United States regarding the contamination of soils by mining byproducts. in Ottawa County	All Bureaus and Offices	1/1/1887 to 7/2/2002
8.	All documents relating to any requirement imposed by the United States that mining byproducts be stored above ground in Ottawa County.	All Bureaus and Offices	1/1/1887 to 7/2/2002
9.	All documents relating to the use of mining byproducts for surface covering or fill material, including but not limited to on roads, driveways, playgrounds or parking lots. in Ottawa County	All Bureaus and Offices	1/1/1887 to 7/2/2002
10.	All documents relied on by the United States in lifting the ban on sales of mining byproducts in Ottawa County in 2001.	All Bureaus and Offices	1/1/1887 to 7/2/2002
11.	All documents relating to any request to the United States by mining companies to cease mining operations in Ottawa County.	All Bureaus and Offices	1/1/1887 to 7/2/2002
12.	All documents relating to any royalty payments received by the United States from the sale of mining byproducts in Ottawa County.	All Bureaus and Offices	1/1/1887 to 7/2/2002

For questions about whether a particular type of document is covered by this court order and should be included, call Harvey Blank, Office of the Solicitor, at 202-208-3908. Contact Jamie Burley in the Document Management Unit at 202-208-3800 if you have any questions about this process.

Attachments: 6

Wolverine $40,000 prod. loan.

Report by Munds reached completed draft just before Munds died. He approved project as profitable.
Munds report checked by Perkins & revised by Gallagher & sent to Mr. Elverum for his review prior to typing.

Denial recommended [illegible] committee
(verbally notified owner 8-24-51)
Copy of denial letter to owner 9-20-51 from Wash. office DMA

SEP 24 1951

SEP 17 1951

Re: DMA-1700

Mr. H. P. Sexton
Wolverine Mining Company
P. O. Box 397
Picher, Oklahoma

Dear Mr. Sexton:

Your application (DMA-1700) for a direct loan of $40,000 to be used in operations at the Wolverine mine in Ottawa County, Oklahoma, has been reviewed again by the Defense Minerals Administration after additional information concerning your property was received from our field staff.

A necessary qualification for a direct loan is that the applicant should have proven reserves of strategic minerals in large enough tonnage to secure the loan. No loan can be approved until an adequate reserve is established. From the information supplied in our field staff's report, we conclude that there has been an insufficient amount of drilling in the area where you intend to mine to actually measure the ore reserves. In view of the lack of a significant tonnage of measured reserves on your property, the Defense Minerals Administration does not consider that the expenditure of public funds which you request is warranted. I regret, therefore, that your application must be ~~declined~~. denied

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

Very truly yours,

Tom Lyon
~~Tom Lyon~~, Director
Supply Division

ABCampbell:emp
G 9-13-51
Copies to: David Gallagher, Region VI (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 GSA
Administrators r. file
DMA docket files

SEP 24 1951

350

SEP 17 1951

Re: DMA-1780
Wolverine Mine
Ottawa County, Oklahoma
Direct loan $40,000
Zinc

Memorandum

To: Reports and Records Unit
Administrative Management Div.

From: Chief, Lead-Zinc Branch

Subject: Denial of direct loan

The applicant has requested a direct loan of $40,000 for the dewatering of old workings, for working capital and for the purchase of mining equipment. The proposed production would be from the Wolverine Mine, Ottawa County, Oklahoma.

The Field Team, Region VI, has reviewed the application and supporting drill records and recommends that the application be denied for the following reasons:

1. There are not enough drill holes in ore to actually measure or even indicate ore reserves sufficient to justify the $40,000 loan.

2. The geological conditions are less favorable than other Tri-State areas. The Bureau of Mines (T.I. 4140) considered the reserves of the area nil, even in the most marginal and inferred categories.

3. The applicant's lease has been invalid since May 15, 1951.

4. The applicant would be a novice manager.

The Lead-Zinc Branch concurs with the Field Team's recommendation that the application be denied.

Returned herewith are:
1 copy field team memorandum
1 copy Form MF-102 and attachments
drill records
correspondence to and from applicant

ABCampbell:emp
G 9-13-51
Copies to:
David Gallagher (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. Bishop
Directors r files 4214
Br. r. files 4214 GSA

L. P. Billings, Chief
Lead-Zinc Branch

Approved:
Tom Lyon

Administrators r. file
MF Docket files

xxxxxxxxxxxxxx

Joplin, Missouri

September 4, 1951

Memorandum

To: Chairman, Lead-Zinc Committee

From: Field Team, Region VI

Subject: Wolverine Mining Company
Picher, Oklahoma
Production Loan
Docket No. DMA 1780

The Field Team apologizes for the delay in submitting this memorandum. However, Mr. Mead, the engineer assigned this docket, died July 31, and McElveeny assigned this docket to be re-studied by the undersigned.

The Field Team recommends that the application for this production loan be denied for the following reasons:

1. According to standard Tri-State practice, there are not enough drill holes in ore to actually measure, or even indicate, ore reserves sufficient to justify the $40,000 loan. Only Block B (see applicants map), which has 2 holes representing possibly 15,000 tons of ore containing 4 percent zinc, might be considered as indicated ore. Block A (see applicants map) is barely inferred ore.

2. The Geological conditions are less favorable than other Tri-State areas. The office of Mr. Mike Evans, who did most of the mining on this property in 1923-1924, gave me the definite impression that although he was "scraping the bottom of the barrel" for likely prospects to develope during his high Government subsidy payments of World War II, he never considered returning to further explore the Wolverine (Muskogee, Craig) mine.

   In the rather comprehensive studies of the Tri-State district zinc and lead reserves (R.I. 4490) the Bureau of Mines considered the reserves of the Muskogee mil even

in the most marginal and inferred categories

3. There is no concrete agreement for any specific part of dewatering by the Muskogee pumping station.

4. The applicant's lease has been invalid since May 15, 1951.

5. The applicant would be a novice mine manager.

Clinton C. Knox
Acting for L. T. McElveany
Acting Executive Member
DMA Team, Region VI

DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 1780 X

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

APPLICATION FOR 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:	Lead-zinc Branch	Date	7/3/51
To:	[illegible]	Date	7/5/51
To:	Lead Zinc Branch	Date	7/9/51
To:	Exec. Committee	Date	7/10/51
To:	Field Team	Date	7/11/51
To:	" " Sec.	Date	7/13/51
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

July 10, 1951

Re: DMA-1780X

Mr. K. P. Sexton, General Partner
Wolverine Mining Company (Unincorp.)
P. O. Box 397
Picher, Oklahoma

Dear Mr. Sexton:

Your application (Docket DMA-1780X) for an exploration loan under the provisions of the Defense Production Act of 1950 has been reviewed by the Lead-Zinc Branch of the Defense Minerals Administration. Before final decision can be taken on your request it will be necessary to obtain additional information on your property. Your application, therefore, has been referred to Mr. David Gallagher, Executive Officer, DMA Field Team, 221 West 3d Street, Joplin, Missouri, with the request that the needed information be supplied to us.

Very truly yours,

Tom Lyon, Director
Supply Division

ALBROKAW:emp
G 7-9-51
Copies to: Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
R. H. Mote
L. F. Strobel
Directors r. file 4214
Br. r. file 4214 GSA
Files
David Gallagher Region VI (2)

JUL 13 1951

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

JUL 11 1951

Re: Docket DMA1780
Wolverine Mining Company
Picher, Oklahoma
Zinc
Exploration loan

Mr. David Gallagher
Executive Officer, DMA Field Team
Region VI
221 West 3d Street
Joplin, Missouri

Dear Mr. Gallagher:

The subject docket, a request for a production loan of $40,000, has been reviewed by the Defense Minerals Administration. The application is well presented, but some statements relative to methods of ore calculations and the use of certain drill hole data are questionable.

(1) The applicant uses an average ore height of 21.5 feet. It is true this is the average for all the data submitted, but the average is the result of combining two separated shoots. Area "B" has an estimated height of 30 feet based on two drill holes (numbers 2 and 3, not submitted). Area "A" has an average ore height of 12.5 feet. These are two separate ore bodies and an overall average thickness of the two cannot be used in calculating tonnage. Calculated separately, the resultant ore tonnage is about 40,000 tons less than that estimated by the applicant.

(2) The drill hole data submitted is not convincing and needs careful investigation. Hole 1 is presumably mined out. It is not clear what part of the hole was used in arriving at the 15' ore thickness of 4.25% ZnS. The hole actually shows 25' of 3.72% ZnS. Assays for hole 4B seem to be too high for the district and the recorded log. Twenty feet of Zinc shines that average 9.91% ZnS is questionable. In hole 5B, if the assays given are correct, only 10 feet can be considered as ore. Hole 7B is not consistent with the ore as mined in the adjacent block. Even the applicant notes this discrepancy.

It is possible that the property has more merit than is indicated by the supporting data, therefore, a thorough field examination is necessary. The field report should follow closely the outline for processing mining loans. Adherence to this outline will greatly facilitate final handling of this docket in Washington.

Approved:

C. H. Johnson
for Bureau of Mines

Olaf L. Rose
for Geological Survey

Very truly yours,

Tom Lyon
Chairman
Coordinating Committee

AUG 12 1951

350

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

AUG 9 1951

DMA-1780
Wolverine Mining Company
Picher, Oklahoma

Mr. David Gallagher
U. S. Department of the Interior
Defense Minerals Administration
Joplin, Missouri

Dear Mr. Gallagher:

This will acknowledge receipt of your letter of July 27.

We have corrected our records on DMA-1780 eliminating the "X" as suggested by you. The Wolverine Mining Company docket now carries the number DMA-1780.

Thank you for calling this to our attention.

Yours very truly,

Tom Lyon
Chairman
Coordinating Committee

For Bureau of Mines

For Geological Survey

4626

xxxxxxxxxxxxx
Joplin, Missouri

July 27, 1951

Mr. Tom Lyon
Chairman, Coordinating Committee
Defense Minerals Administration
Washington 25, D. C.

Dear Mr. Lyon:

In Report No. 90 of the Coordinating Committee entitled Field Referrals, July 11, 1951, I note that the second item, DMA-1780X, Wolverine Mining Company, perpetuates a bit of confusion.

The application of the Wolverine Mining Company has been referred to this office. The applicant submitted Form MF-102 for a loan of less than $50,000 for production. The body of the application and the attached correspondence make no mention of exploration. No MF-103 was submitted requesting exploration.

Apparently the docket number should be DMA-1780, not DMA-1780X. The X was added by error somewhere along the line.

Sincerely yours,

David Gallagher

Form MF-100
(May 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 1780X

Date received 7-2-51

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

Wolverine Mining Company (Uninc.)
P. O. Box 397
Picher, Oklahoma

Name and address of applicant

Date June 28, 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) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (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

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? ZnS Concentrate
   (*b*) What are the byproducts, if any? None
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: See data accompanying Form MF-102
   (*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: See data accompanying Form MF-102.
   (*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. No.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☒ Lessee.
   - ☐ Contractor.
5. Number of years in production Not in production.

   If not in production or operation, estimated date when production will begin 30 days after approval of loan.
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. Partners have been connected with major Tri-State operating companies for 15 to 25 yrs. Experience covers mine operation, engineering, supervision and management.
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.

   See data accompanying Form MF-102

16—63792-2

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)
K. P. Sexton, Baxter Springs, Ks.	Partner	None					None
W. E. Lykins, Commerce, Okla.	Partner	None					None
G. R. Scott, Miami, Okla.	Partner	None					None
Naomi Williams, Commerce, Okla.	Partner	None					None
C. E. Stover, Miami, Okla.	Partner	None					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: None - inapplicable

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: No production experience.

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)					
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. New Production of 5,000 tons rock per month.

12. Ore or Mineral Reserves: See data accompanying Form MF-102

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

(*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)	109,118	6.0% ZnS	6.90	6.90	$4.25
Indicated (probable)					

(*c*) If placer: Inapplicable.

(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: Maximum of 5 miles. All weather roads throughout district.
Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply: Adequate supply - mine water and creek.
State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power: Empire District Electric Company (Negotiated rate based on consumption)
State amount of power used, rate per hour, and source thereof.

16. Labor: 12 to 15 miners.
State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities: None at present.

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.
None.

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.

Wolverine Mining Company (Unino.)
(Name of company)

By K. P. Sexton
(Signature of authorized official)
K. P. Sexton

June 28, 1951
(Date)

General Partner
(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

dmr 21750 X

WOLVERINE MINING COMPANY
(Unincorporated)

P.O. Box 397

Picher, Oklahoma

June 27, 1951

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

Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Special Attention: Mr. Otto Herres

Subject: Applications on Forms MF100 and MF102

Gentlemen:

You will please find attached subject applications along with pertinent technical data and exhibits, all to be considered a part thereof.

You will note that our company is not incorporated and at this writing is a general partnership. However, our plans call for immediate incorporation in the event our applications are approved.

This mine was last operated in January and February of 1924 in which period 287 tons of zinc concentrates was produced at the then market price of $41.00 per ton. The mine was closed in March of 1924. The shafts were sealed to prevent inflow of surface water and has not been operated since. Production records prior to 1924 have not been found to be available.

We have removed the seal on one shaft and made entry via winch truck to the shaft level of 175 feet. The property has been examined by competent mining engineers and termed an excellent prospect for quick production as evidenced by attached exhibits.

The underground water is controlled by a central pumping station known as the Muskogee Pump Station. Our underground working level is covered with five feet of water which can be easily handled by lowering the present water table which is now being held by existing pumps already installed at the above mentioned location.

We trust that you will find our attached data and exhibits clear and detailed sufficiently for your early consideration.

Yours very truly,

WOLVERINE MINING COMPANY (Uninc.)

By K. P. Sexton

K. P. Sexton,
General Partner

KPS/bb

WOLVERINE MINING COMPANY

P.O. Box 397

Picher, Oklahoma

Schedule of exhibits and data attached:

(1) Underground Map - Picher, Oklahoma Mining Field

(2) Map - Wolverine Mine - Craig Land
NE$\frac{1}{4}$, NE$\frac{1}{4}$, Sect. 33, Twp 29N, R23E, Ottawa County, Oklahoma

(3) Copy of Mining Lease

(4) Letters from Banks (Subject: Loan)

(5) Copies of Drill Logs.

Form MF-102
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1028.

MF-102 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR GOVERNMENT LOAN
Not to Exceed $50,000
Under the Defense Production Act of 1950

Not to be filled in by applicant

Docket No. dma 1780X

Date received 7-2-51

Name and address of applicant

Wolverine Mining Company (Uninc.)
P. O. Box 397
Picher, Oklahoma

Date of application

June 27, 1951

Amount of loan requested

$40,000.00

Terms of loan requested

Amortization (Note 2)

If you have already filed MF-100, give date filed _____, type of assistance requested _____, DMA docket number (if available) _____

INSTRUCTIONS

Application should be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. Submit four copies of this application and four copies of General Technical Data Form MF-100. If the latter form has been filed previously with an application for Government assistance, it is not necessary to file it again. However, the applicant should indicate in space provided above the type of assistance previously applied for (loans, procurement contract, etc.) and DMA docket number, if available.

Name and address of applicant should be stamped or typed on each sheet of the application 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 in the application, indicate where answered. It is not necessary to answer it again.

1. PURPOSE OF LOAN:

Give a brief general statement of the purpose of the loan requested, including in the table below estimated amounts for such major purposes as land acquisition, building construction, purchase of plant, purchase of equipment, working capital, repayment of debt, etc. Statement should make clear whether funds will be used for expansion of capacity, development of technological processes, or production of essential materials.

General Statement.

To pump approximately five feet of water. Clean and repair shaft. Purchase equipment and put mine in working condition for production of essential mineral.

NATURE OF EXPENDITURE	AMOUNT
Dewatering and working capital	$10,000.00
Purchase of equipment	30,000.00

TOTAL AMOUNT APPLIED FOR $40,000.00

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

2. PROPOSED METHOD FOR REPAYMENT OF LOAN: Amortization at 40¢ per ton of ore mined.
State how loan will be repaid and proposed schedule of repayment.

3. CLAIMS AGAINST GOVERNMENT: None.
Explain in detail, stating amount of each claim filed and amount recovered, if any. If no such claim has been filed, so state.

4. EMPLOYMENT: New employment for approximately 12 to 15 men.
Will loan result in an increase in the number of employees? If so, how many?

5. INSURANCE: Employees and equipment will be adequately insured.
State kind and amount of all insurance carried in favor of applicant. (Fire, public liability, etc.)

16—64195-1

6. RECENT EFFORTS TO OBTAIN CREDIT: **See exhibit 4.**

State efforts to obtain credit, within 60 days preceding date of application, from banks, RFC, or other sources. If refused, give reasons and submit copy of refusal. If a bank will participate in the loan, state name of bank and amount of participation.

7. NECESSITY CERTIFICATES: **None.**

List any applications made for Necessity Certificates for tax amortization (under section 124A of the Internal Revenue Code) giving date of application, Government file number, estimated total cost of facilities on each application, and action taken by Government.

8. OWNERSHIP OF PROPERTY: **See exhibit 3.**

Show how property is held. Attach copy of deeds, leases, or other documents conveying to applicant the present interest of the applicant in the mining property.

9. LEGAL DESCRIPTION OF PROPERTY: **SE¼, SE¼, Sec.33, Twp 29N, R23E, Ottawa County, Oklahoma**

(*a*) Give name and mineral survey number of patented claims, if any, and a map.
(*b*) Give names, dates of location, and place, date book, and page record of all unpatented locations, and a map.
(*c*) If property is other than mining claims, give description by lot numbers, metes and bounds, or according to accepted legal practice.
(*d*) If mineral rights are separated from surface rights, or if any conflicting or overlapping rights exist in the property give full explanation.

10. GEOLOGY AND TOPOGRAPHY: **See U.S. Bureau of Mines Report of Investigations R.I.4490 July 1949**

Submit all available information and maps.

11. EXISTING DEVELOPMENT: **See exhibit 2 and drill hole data.**

(*a*) Furnish all pertinent information with regard to the ore body or mineral deposit. If maps and sections of the mine are not available, pencil sketches are acceptable. However, such sketches should, if possible, be drawn to scale, or if not, dimensions should be shown. Give all available assays of samples, stating clearly how samples were taken, giving width and location of each sample. Show the location, value, and width of each sample on maps submitted.
(*b*) Submit certificates, when available, giving analysis of each sample and number each sample to correspond with sample numbers on the maps submitted.
(*c*) State type of mine, whether tunnel or shaft, and show in detail the existing workings. State distance along dip of vein between levels and to surface. Indicate condition of workings, noting on map caved areas and those areas which it is proposed to make accessible.

12. IF EXPLORATION OR DEVELOPMENT OF MINE IS ANTICIPATED: **See attached sheets.**

(*a*) State clearly and in detail the proposed work.
(*b*) Sketch the proposed work on any maps submitted.
(*c*) Submit cost estimates.

13. MINING: **See attached sheets.**

(*a*) Describe mining methods briefly.
(*b*) Detail all mining costs including power, water, transportation, etc.
(*c*) State time required to reach production.

14. MILLING: **See attached sheets.**

(*a*) State how and where ore is to be milled.
(*b*) State capacity, percentage of extraction, ratio of concentration, and submit flow sheet, if ore is to be milled by applicant.
(*c*) Detail the milling costs and transportation costs, if any.
(*d*) Explain tailing disposal.
(*e*) Explain source of water and whether it is suitable.
(*f*) Detail the marketing of concentrates and submit actual or proposed smelter contracts, if available.

15. Submit any available informative data not covered in the preceding paragraphs. **None.**

16. NAMES AND ADDRESSES OF OFFICERS, DIRECTORS, OR PARTNERS, AND IN ADDITION THERETO, THE FIVE LARGEST STOCKHOLDERS IF 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 Applicant (d)	Number of Shares Held in Applicant: Common (e)	Number of Shares Held in Applicant: 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)
K. P. Sexton, Baxter Springs, Ks.	Partner	None					None
W. E. Lykins, Commerce, Okla.	Partner	None					None
G. R. Scott, Miami, Okla.	Partner	None					None
Naomi Williams, Commerce, Okla.	Partner	None					None
C. E. Stover, Miami, Okla.	Partner	None					None
	Total		x x x x			x x x x	x x x x

16—64195-1

WOLVERINE MINING COMPANY

CALCULATIONS

(1)	340 x 150	=	51,000 Sq. Ft.	"A"
(2)	142 x 51	=	7,242 Sq. Ft.	"A"
(3)	156 x 34	=	5,304 Sq. Ft.	"A"
(4)	32 x 29	=	928 Sq. Ft.	"A"
(5)	52 x 40	=	2,080 Sq. Ft.	"A"
(6)	160 x 56	=	8,960 Sq. Ft.	"B"
		Total	75,514 Sq. Ft.	

Average Ht.	21.25	
Cu. Ft.	1,604,673	
Deduct 15% Pillars	.85	
Cu. Ft.	1,363,972	(12.5 Cu. Ft. equal One Ton)
Rock Tons (Ore)	109,118	
Average Recovery	6%	
Tons ZnS Conc.	6,547	
Tri-State Market Price Per Ton	$115.00	
Gross Value	$752,905.00	

Tons Ore Rock	Value Per Rock Ton	Estimated Production Cost Per Rock Ton	Est. Profit Per Rock Ton	Total Est. Profit
109,118	$6.90	4.25	2.65	$315,662.00
Deduct Royalty 10%				75,290.00
				$240,272.00
Amortization of Loan @ 40¢ Per Rock Ton until Paid				40,000.00
		Net Profit before Taxes		$200,272.00

Note: The above calculations might be subject to mill efficiency which varies with the grade of mill heads. 5% to 6% ore is milled quite efficiently. Tri-State milled concentrates' price is based on 60% zinc content whereas uncontaminated zinc sulfide contains 66⅔% zinc metal. It is generally accepted that the value of pure ZnS in place as against 60% base concentrates diluted in milling, offsets milling loss.

WOLVERINE MINING COMPANY

CALCULATIONS

Area A (See Exhibit #5)

Hole #	Ht.	Av. Assay ZnS		
F10	10	x 7.96	-	79.60
F9	15	x 4.24	-	63.60
F8	7.5	x 9.30	-	69.67
F4	10	x 3.97	-	39.70
F5	10	x 4.24	-	42.40
4B	20	x 9.91	-	198.20
5B	15	x 4.82	-	72.30
7B	-	-		-
	87.5			565.47
Average	12.5 ft.			6.46%

Note: The square area of Block A' is included with Block A and the average height and grade found for Block A used for tonnage calculation rather than the rich assay shown for drill hole 7B. There appears to be some discrepancy between the drill log and the assay record for hole 7B at 140 to 155 feet. Data for drill holes 4B and 5B is used in Area A calculations due to mineralized fractures along the mine wall bordering the area.

Area B

Hole #2	30	x 6.77	-	203.10
Hole #3	30	x 5.12	-	153.60
	60			356.70
Average	30 ft.			5.94%

Note: Tonnage and grade calculations for Area B are based on drill holes No. 2 and 3. The log for hole 6B is submitted in support but not used. The mine wall bordering this area shows mineralization substantiating calculations.

Area A	12.5	x 6.46	-	80.75
Area B	30.0	x 5.94	-	178.20
	42.5			258.95
Average	21.25 ft.			6.0%

This average is not realistic. Area A is out of proportion.

Note: Visual examination of the old workings indicate considerable roof ore obtainable consistent in grade to accompanying calculations.

Drill hole logs for only those holes considered mineable at this time are submitted with this application. Logs of all drilling available.

Wolverine Mining Company (Uninc.)
P. O. Box 397
Picher, Oklahoma

Form MF-102 (Supplemental Sheets)

12. (a) Possibly some drilling will be carried on after mine is in production.

13. (a) Jumbo drilling if obtainable, otherwise post drilling, slusher loading, and rope haul to shaft.

(b)

Total mining	$2.10 per ton
Pumping	0.20 Per ton
General and Overhead	0.15 Per ton
Surface hauling and Milling	1.80 Per ton
Total Cost	$4.25 Per Ton

(c) Thirty days to reach production.

14. Eagle-Picher Central Mill, sink-float method. Flotationproduct. Marketed by Eagle-Picher.

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	$	$	$		

17. COMPENSATION SCHEDULE:

Instructions: The schedule shall show the amount of compensation being paid to all employees of applicant receiving compensation at a rate in excess of $5,000 per annum computed on a full-time basis. Any compensation in excess of this amount must receive Government approval.

18. COLLATERAL OFFERED AS SECURITY FOR LOAN: See attached data.

Brief Description	Date Acquired	Cost to Applicant	Present Net Book Value	Appraised	State by Whom Appraised and Date
Real estate (describe):					
		$	$	$	
Buildings (describe):					
Machinery, equipment, and other chattels exclusive of office furniture and fixtures (describe):					

Future Production Description	Date Expected To Reach Full Production	Gross Value	Net Value

19. CURRENT FINANCIAL STATEMENT:

ASSETS		LIABILITIES	
Current:		Current:	
1. Cash	$	1. Notes payable	$
2. Notes receivable		2. Accounts payable	
3. Accounts receivable		3. Other	
4. Inventories		4. Accrued (interest, taxes, rent, etc.)	
Total		Total	
Fixed and Other:		Fixed and Other:	
5. Plant — Lands		5. Mortgage debt	
5. Plant — Buildings		6. Contracts, leases, royalty	
5. Plant — Ores		7. Other (describe)	
6. Machinery		Total	None
7. Equipment, furniture, etc.			
Total	None	10. Contingent (describe)	

20. CONDENSED COMPARATIVE STATEMENT OF INCOME AND EXPENSES:

For years ended _____
(Insert date of end of fiscal year)

(000.00 omitted)

	(Figures for 3 Preceding Years)			Current Year as of Date of Financial Statement
	19____	19____	19____	
1. Net sales of ores or concentrates				
2. Cost of production				
3. Gross profit on sales (line 1 minus line 2)				
4. Other income (itemize)	INAPPLICABLE			
5. Total (line 3 plus line 4)				
6. Salaries (officers or partners)*	No past experience with this lease.			
7. Selling and all other expenses				
8. Total of lines 6 and 7				
9. Profit or loss before depreciation and Federal taxes (line 5 minus line 8)				
10. Depreciation				
11. Federal income and excess profits taxes				
12. Net profit or loss (line 9 minus lines 10 and 11)				

NOTE.—If applicant is incorporated an analysis of surplus should be given in detail for each of the years shown in the above tabulation.

*To include all payments of any kind (commissions, bonuses, withdrawals) to officers or partners.
NOTE.—If years included in the above tables are not adequately representative of applicant's financial experience, information may be submitted for additional years.

21. NOTES PAYABLE, MORTGAGE DEBT, AND LIENS: NONE.
List notes payable, giving maturity dates, amounts, character of collateral and names of guarantor(s) and/or endorser(s). Give names and addresses of holders of notes.
List names and addresses of holders of mortgages, maturity dates, interest rates, amounts paid and amounts unpaid.
List names and addresses of holders of liens against production, quantity involved, amounts of principal and interest due and dates of repayment.

22. AGREEMENT AS TO COMPENSATION FOR SERVICES RENDERED OR TO BE RENDERED TO APPLICANT IN CONNECTION WITH APPLICATION AND/OR LOAN: NONE.
No fees or commission shall be paid by applicant for the purpose of procuring a loan. Reasonable compensation may be made for proper services actually rendered to applicant in preparing this application. If such services have been rendered, state kind of services and charges for same. Applicant agrees that all such compensation intended to be paid from the proceeds of the loan, if granted, shall be subject to approval by the Government.

_____
(Applicant)

23. The applicant hereby certifies that the statements made in the foregoing application and all exhibits and documents submitted in connection therewith are true and correct statements to the best of applicant's information and belief and are submitted as a basis for credit.

Dated June 27, 1951

Witness: R. A. Bates

Witness: B. E. Barbee

(For individual applicants)

_____
(Signature)

(For partnership applicants)

Wolverine Mining Company (Uninc.)
(Full name of firm)

By K. P. Sexton, a general partner
(Signature) K. P. Sexton
(For corporate applicants)

[CORPORATE SEAL]

_____
(Full corporate name of applicant)

Attest.

By _____ _____
(Signature) (Title)

_____ _____
(Signature) (Title)

The United States Criminal Code, 18 U. S. C., Sec. 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.

16—64195-1 U. S. GOVERNMENT PRINTING OFFICE

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

EXHIBIT NO. 5

Hole F-10

S. E. Henderson, driller. Started October 26, finished November 2, 1925.

From	To	
0'	14'	Soil and clay
14	45	Gray limestone
45	65	Limestone and flint
65	75	White chalky flint
75	100	Limestone and flint
100	105	Open ground, no cuttings
105	115	White and gray flint. Loose
115	125	White and gray flint, shaly limestone. Loose
125	140	White and gray flint. Loose
140	160	Flint and soft gray limestone
160	165	White and bluish flint
165	175	White, bluish and some black flint, ZnS ore (a little chatty)
175	177½	White and bluish flint and ZnS shines
177½	190	White and gray flint
190	197	Limestone and flint

No water

Assay	ZnS
165-170	9.30
170-172½	8.40
172½-175	4.85
175-177½	3.90

Average 10' 7.96%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-9

S. E. Henderson, driller. Started October 17, finished October 24, 1925.

From	To	
0'	15'	Soil and clay
15	25	Shale
25	50	Sandstone
50	60	Gray limestone
60	80	Limestone and flint
80	105	Gray, blue and yellow flint. Loose
105	110	Limestone and flint
110	130	Gray flint
130	140	Blue flint, few ZnS shines
140	150	Gray, blue and yellow flint
150	160	White and gray flint and ZnS shines
160	165	White, gray and black flint and ZnS shines (chatty)
165	175	White flint and ZnS shines
175	185	White flint
185	194	Limestone and flint

No water

Assay	ZnS
150-155	2.10
155-160	2.01
160-162½	7.02
162½-165	3.99
165-170	2.70
170-175	4.53
Average 15'	4.24%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-8

S. E. Henderson, driller. Started October 8, finished October 16, 1925.

From	To	
0'	5'	Soil and clay
5	55	Shale
55	70	Limestone and flint
70	125	White limestone and flint
125	140	White limestone and silicified chloritic limestone
140	155	White and brown flint and some little limestone
155	162½	White and bluish flint, some jasperoid, ZnS ore (chatty)
162½	185	White and gray flint and few ZnS shines
185	190	White flint
190	204	Brown limestone and flint

No water

	Assay	ZnS
	155-160	9.00
	160-162½	9.87
Average	7½'	9.3%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-4

R. A. Swartz, driller. Started September 1, finished September 18, 1925.

From	To	
0'	12'	Soil and clay
12	25	Boulders and clay
25	95	Limestone and flint
95	105	Open ground, no cuttings
105	110	Blue flint. Loose
110	125	Open ground, no cuttings
125	135	Blue and white flint and ZnS shines
135	140	Open ground, no cuttings
140	150	White and bluish flint
150	155	Open ground, no cuttings
155	195	Blue flint and ZnS shines
195	209	Limestone and flint

Struck water at 200' (weak), stands at 200'

	Assay	ZnS
	125-130	4.29
	130-132½	4.65
	132½-135	2.64
Average	10'	3.97%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-5

S. E. Henderson, driller. Started September 22, finished Sept. 30, 1925.

From	To	
0'	8'	Soil and clay
8	15	Boulders and clay
15	55	Gray limestone
55	100	Limestone and flint
100	105	Blue and gray flint
105	115	Blue and white flint and ZnS shines
115	125	White flint, few ZnS shines
125	130	Open ground, no cuttings
130	155	White flint. Loose
155	180	White and gray flint
180	190	White and bluish flint and ZnS shines
190	200	White flint, brown limestone
		No water

	Assay	ZnS
	105-110	4.86
	110-115	3.62
Average	10'	4.24%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole 4-B

I. L. Wyatt, driller. Started February 23, finished March 12, 1923.

From	To	
0'	25'	Clay and boulders
25	60	Lime
60	80	Lime and flint
80	90	Shelly white flint
90	95	Shelly blue flint
95	115	Shelly brown flint
115	120	Shelly blue brown flint
120	125	Hard brown flint
125	130	Shelly blue brown flint
130	135	Hard white flint - jack shines
135	140	Hard white flint - jack shines
140	145	Hard white flint - jack shines
145	150	Hard white flint - jack shines
150	155	Hard white flint - jack shines
155	160	Hard white flint - jack shines
160	165	Hard white flint - jack shines
165	200	Hard white flint - some lime
200	235	Hard white flint - some lime
235	250	Looser white brown flint
250	260	Hard brown flint - some lime

Water 120'

Assay	ZnS
145-150	9.00
150-155	11.50
155-160	9.65
160-165	9.51
Average 20'	9.91%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole 5-B

J. F. Renfro, driller. Started February 22, finished March 1, 1923.

From	To	
0'	10'	Red clay
10	30	Lime and flint boulders
30	90	Gray lime
90	95	Gray flint
95	105	Gray blue flint - good jack
105	135	Gray flint - jack shines
135	185	Gray flint
185	201	Gray lime

Water 150'

	Assay	ZnS
	95-100	7.55
	100-105	5.25
	105-110	1.65
Average	15'	4.82%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole 7-B

E. Gates, driller. Started March 14, finished March 27, 1923.

From	To	
0'	6'	Clay
6	54	Lime
54	90	Lime and flint
90	100	Blue flint
100	120	Lime and flint
120	135	Good jack
135	150	Jack shines
150	162	Good jack
162	190	Water flint

Water 155'

Assay	ZnS
120-125	15.45
125-130	13.65
130-135	9.67
135-140	10.13
140-155	12.23
155-160	10.20
160-165	11.25

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-10

S. E. Henderson, driller. Started October 26, finished November 2, 1925.

From	To	
0'	14'	Soil and clay
14	45	Gray limestone
45	65	Limestone and flint
65	75	White chalky flint
75	100	Limestone and flint
100	105	Open ground, no cuttings
105	115	White and gray flint. Loose
115	125	White and gray flint, shaly limestone. Loose
125	140	White and gray flint. Loose
140	160	Flint and soft gray limestone
160	165	White and bluish flint
165	175	White, bluish and some black flint, ZnS ore (a little chatty)
175	177½	White and bluish flint and ZnS shines
177½	190	White and gray flint
190	197	Limestone and flint

No water

Assay	ZnS
165-170	9.30
170-172½	8.40
172½-175	4.85
175-177½	3.90
Average 10'	7.96%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-9

S. E. Henderson, driller. Started October 17, finished October 24, 1925.

From	To	
0'	15'	Soil and clay
15	25	Shale
25	50	Sandstone
50	60	Gray limestone
60	80	Limestone and flint
80	105	Gray, blue and yellow flint. Loose
105	110	Limestone and flint
110	130	Gray flint
130	140	Blue flint, few ZnS shines
140	150	Gray, blue and yellow flint
150	160	White and gray flint and ZnS shines
160	165	White, gray and black flint and ZnS shines (chatty)
165	175	White flint and ZnS shines
175	185	White flint
185	194	Limestone and flint

No water

Assay	ZnS
150-155	2.10
155-160	2.01
160-162½	7.02
162½-165	3.99
165-170	2.70
170-175	4.53
Average 15'	4.24%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-8

S. E. Henderson, driller. Started October 8, finished October 16, 1925.

From	To	
0'	5'	Soil and clay
5	55	Shale
55	70	Limestone and flint
70	125	White limestone and flint
125	140	White limestone and silicified chloritic limestone
140	155	White and brown flint and some little limestone
155	162½	White and bluish flint, some jasperoid, ZnS ore (chatty)
162½	185	White and gray flint and few ZnS shines
185	190	White flint
190	204	Brown limestone and flint

No water

	Assay	ZnS
	155-160	9.00
	160-162½	9.87
Average	7½'	9.3%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-4

R. A. Swartz, driller. Started September 1, finished September 18, 1925.

From	To	
0'	12'	Soil and clay
12	25	Boulders and clay
25	95	Limestone and flint
95	105	Open ground, no cuttings
105	110	Blue flint. Loose
110	125	Open ground, no cuttings
125	135	Blue and white flint and ZnS shines
135	140	Open ground, no cuttings
140	150	White and bluish flint
150	155	Open ground, no cuttings
155	195	Blue flint and ZnS shines
195	209	Limestone and flint

Struck water at 200' (weak), stands at 200'

	Assay	ZnS
	125-130	4.29
	130-132½	4.65
	132½-135	2.64
Average	10'	3.97%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-5

S. E. Henderson, driller. Started September 22, finished Sept. 30, 1925.

From	To	
0'	8'	Soil and clay
8	15	Boulders and clay
15	55	Gray limestone
55	100	Limestone and flint
100	105	Blue and gray flint
105	115	Blue and white flint and ZnS shines
115	125	White flint, few ZnS shines
125	130	Open ground, no cuttings
130	155	White flint. Loose
155	180	White and gray flint
180	190	White and bluish flint and ZnS shines
190	200	White flint, brown limestone
		No water

	Assay	ZnS
	105-110	4.86
	110-115	3.62
Average	10'	4.24%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole 4-B

I. L. Wyatt, driller. Started February 23, finished March 12, 1923.

From	To	
0'	25'	Clay and boulders
25	60	Lime
60	80	Lime and flint
80	90	Shelly white flint
90	95	Shelly blue flint
95	115	Shelly brown flint
115	120	Shelly blue brown flint
120	125	Hard brown flint
125	130	Shelly blue brown flint
130	135	Hard white flint - jack shines
135	140	Hard white flint - jack shines
140	145	Hard white flint - jack shines
145	150	Hard white flint - jack shines
150	155	Hard white flint - jack shines
155	160	Hard white flint - jack shines
160	165	Hard white flint - jack shines
165	200	Hard white flint - some lime
200	235	Hard white flint - some lime
235	250	Looser white brown flint
250	260	Hard brown flint - some lime

Water 120'

Assay	ZnS
145-150	9.00
150-155	11.50
155-160	9.65
160-165	9.51

Average 20' 9.91%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole 5-B

J. F. Renfro, driller. Started February 22, finished March 1, 1923.

From	To	
0'	10'	Red clay
10	30	Lime and flint boulders
30	90	Gray lime
90	95	Gray flint
95	105	Gray blue flint - good jack
105	135	Gray flint - jack shines
135	185	Gray flint
185	201	Gray lime

Water 150'

	Assay	ZnS
	95-100	7.55
	100-105	5.25
	105-110	1.65
Average	15'	4.82%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole 7-B

E. Gates, driller. Started March 14, finished March 27, 1923.

From	To	
0'	6'	Clay
6	54	Lime
54	90	Lime and flint
90	100	Blue flint
100	120	Lime and flint
120	135	Good jack
135	150	Jack shines
150	162	Good jack
162	190	Water flint

Water 155'

Assay	ZnS
120-125	15.45
125-130	13.65
130-135	9.67
135-140	10.13
140-155	12.23
155-160	10.20
160-165	11.25

Form MF-100
(May 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 1780X

Date received 7-2-51

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

Wolverine Mining Company (Uninc.)
P. O. Box 397
Picher, Oklahoma

Name and address of applicant

Date June 28, 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) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (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

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? ZnS Concentrate
   (*b*) What are the byproducts, if any? None
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: See data accompanying Form MF-102
   (*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: See data accompanying Form MF-102.
   (*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. No.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☒ Lessee.
   - ☐ Contractor.
5. Number of years in production Not in production.

   If not in production or operation, estimated date when production will begin 30 days after approval of loan.
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 Partners have been connected with major Tri-State operating companies for 15 to 25 yrs. Experience covers mine operation, engineering, supervision and management.
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.

   See data accompanying Form MF-102

16—63792-2

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)
K. P. Sexton, Baxter Springs, Ks.	Partner	None					None
W. E. Lykins, Commerce, Okla.	Partner	None					None
G. R. Scott, Miami, Okla.	Partner	None					None
Naomi Williams, Commerce, Okla.	Partner	None					None
C. E. Stover, Miami, Okla.	Partner	None					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: None - inapplicable

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: No production experience.

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)					
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. New Production of 5,000 tons rock per month.

12. Ore or Mineral Reserves: See data accompanying Form MF-102

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

(*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)	109,118	6.0% ZnS	6.90	6.90	$4.25
Indicated (probable)					

(*c*) If placer: Inapplicable.

(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: Maximum of 5 miles. All weather roads throughout district.
Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply: Adequate supply - mine water and creek.
State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power: Empire District Electric Company (Negotiated rate based on consumption)
State amount of power used, rate per hour, and source thereof.

16. Labor: 12 to 15 miners.
State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities: None at present.

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.
None.

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.

Wolverine Mining Company (Uninc.)
(Name of company)

By K. P. Sexton
(Signature of authorized official)
K. P. Sexton

June 28, 1951
(Date)

General Partner
(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

dmi 1780 X

WOLVERINE MINING COMPANY
(Unincorporated)

P.O. Box 397

Picher, Oklahoma

June 27, 1951

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

Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Special Attention: Mr. Otto Herres

Subject: Applications on Forms MF100 and MF102

Gentlemen:

You will please find attached subject applications along with pertinent technical data and exhibits, all to be considered a part thereof.

You will note that our company is not incorporated and at this writing is a general partnership. However, our plans call for immediate incorporation in the event our applications are approved.

This mine was last operated in January and February of 1924 in which period 287 tons of zinc concentrates was produced at the then market price of $41.00 per ton. The mine was closed in March of 1924. The shafts were sealed to prevent inflow of surface water and has not been operated since. Production records prior to 1924 have not been found to be available.

We have removed the seal on one shaft and made entry via winch truck to the shaft level of 175 feet. The property has been examined by competent mining engineers and termed an excellent prospect for quick production as evidenced by attached exhibits.

The underground water is controlled by a central pumping station known as the Muskogee Pump Station. Our underground working level is covered with five feet of water which can be easily handled by lowering the present water table which is now being held by existing pumps already installed at the above mentioned location.

We trust that you will find our attached data and exhibits clear and detailed sufficiently for your early consideration.

Yours very truly,

WOLVERINE MINING COMPANY (Uninc.)

By K. P. Sexton

K. P. Sexton,
General Partner

KPS/bb

WOLVERINE MINING COMPANY

P.O. Box 397

Picher, Oklahoma

Schedule of exhibits and data attached:

(1) Underground Map - Picher, Oklahoma Mining Field

(2) Map - Wolverine Mine - Craig Land
NE$\frac{1}{4}$, NE$\frac{1}{4}$, Sect. 33, Twp 29N, R23E, Ottawa County, Oklahoma

(3) Copy of Mining Lease

(4) Letters from Banks (Subject: Loan)

(5) Copies of Drill Logs

Form MF-102
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1028.

MF-102 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR GOVERNMENT LOAN
Not to Exceed $50,000
Under the Defense Production Act of 1950

Not to be filled in by applicant

Docket No. dma 1780X

Date received 7-20-51

Name and address of applicant

Wolverine Mining Company (Uninc.)
P. O. Box 397
Picher, Oklahoma

Date of application

June 27, 1951

Amount of loan requested

$40,000.00

Terms of loan requested

Amortization (Note 2)

If you have already filed MF-100, give date filed _____, type of assistance requested _____, DMA docket number (if available) _____

INSTRUCTIONS

Application should be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. Submit four copies of this application and four copies of General Technical Data Form MF-100. If the latter form has been filed previously with an application for Government assistance, it is not necessary to file it again. However, the applicant should indicate in space provided above the type of assistance previously applied for (loans, procurement contract, etc.) and DMA docket number, if available.

Name and address of applicant should be stamped or typed on each sheet of the application 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 in the application, indicate where answered. It is not necessary to answer it again.

1. PURPOSE OF LOAN:

Give a brief general statement of the purpose of the loan requested, including in the table below estimated amounts for such major purposes as land acquisition, building construction, purchase of plant, purchase of equipment, working capital, repayment of debt, etc. Statement should make clear whether funds will be used for expansion of capacity, development of technological processes, or production of essential materials.

General Statement.

To pump approximately five feet of water. Clean and repair shaft. Purchase equipment and put mine in working condition for production of essential mineral.

NATURE OF EXPENDITURE	AMOUNT
Dewatering and working capital	$10,000.00
Purchase of equipment	30,000.00
TOTAL AMOUNT APPLIED FOR	$40,000.00

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

2. PROPOSED METHOD FOR REPAYMENT OF LOAN: Amortization at 40¢ per ton of ore mined.
State how loan will be repaid and proposed schedule of repayment.

3. CLAIMS AGAINST GOVERNMENT: None.
Explain in detail, stating amount of each claim filed and amount recovered, if any. If no such claim has been filed, so state.

4. EMPLOYMENT: New employment for approximately 12 to 15 men.
Will loan result in an increase in the number of employees? If so, how many?

5. INSURANCE: Employees and equipment will be adequately insured.
State kind and amount of all insurance carried in favor of applicant. (Fire, public liability, etc.)

16—64195-1

6. RECENT EFFORTS TO OBTAIN CREDIT: **See exhibit 4.**

State efforts to obtain credit, within 60 days preceding date of application, from banks, RFC, or other sources. If refused, give reasons and submit copy of refusal. If a bank will participate in the loan, state name of bank and amount of participation.

7. NECESSITY CERTIFICATES: **None.**

List any applications made for Necessity Certificates for tax amortization (under section 124A of the Internal Revenue Code) giving date of application, Government file number, estimated total cost of facilities on each application, and action taken by Government.

8. OWNERSHIP OF PROPERTY: **See exhibit 3.**

Show how property is held. Attach copy of deeds, leases, or other documents conveying to applicant the present interest of the applicant in the mining property.

9. LEGAL DESCRIPTION OF PROPERTY: **SE¼, SE¼, Sec.33, Tnp 29N, R23E, Ottawa County, Oklahoma**

(*a*) Give name and mineral survey number of patented claims, if any, and a map.
(*b*) Give names, dates of location, and place, date book, and page record of all unpatented locations, and a map.
(*c*) If property is other than mining claims, give description by lot numbers, metes and bounds, or according to accepted legal practice.
(*d*) If mineral rights are separated from surface rights, or if any conflicting or overlapping rights exist in the property give full explanation.

10. GEOLOGY AND TOPOGRAPHY: **See U.S. Bureau of Mines Report of Investigations R.I.4490 July 1949**

Submit all available information and maps.

11. EXISTING DEVELOPMENT: **See exhibit 2 and drill hole data.**

(*a*) Furnish all pertinent information with regard to the ore body or mineral deposit. If maps and sections of the mine are not available, pencil sketches are acceptable. However, such sketches should, if possible, be drawn to scale, or if not, dimensions should be shown. Give all available assays of samples, stating clearly how samples were taken, giving width and location of each sample. Show the location, value, and width of each sample on maps submitted.
(*b*) Submit certificates, when available, giving analysis of each sample and number each sample to correspond with sample numbers on the maps submitted.
(*c*) State type of mine, whether tunnel or shaft, and show in detail the existing workings. State distance along dip of vein between levels and to surface. Indicate condition of workings, noting on map caved areas and those areas which it is proposed to make accessible.

12. IF EXPLORATION OR DEVELOPMENT OF MINE IS ANTICIPATED: **See attached sheets.**

(*a*) State clearly and in detail the proposed work.
(*b*) Sketch the proposed work on any maps submitted.
(*c*) Submit cost estimates.

13. MINING: **See attached sheets.**

(*a*) Describe mining methods briefly.
(*b*) Detail all mining costs including power, water, transportation, etc.
(*c*) State time required to reach production.

14. MILLING: **See attached sheets.**

(*a*) State how and where ore is to be milled.
(*b*) State capacity, percentage of extraction, ratio of concentration, and submit flow sheet, if ore is to be milled by applicant.
(*c*) Detail the milling costs and transportation costs, if any.
(*d*) Explain tailing disposal.
(*e*) Explain source of water and whether it is suitable.
(*f*) Detail the marketing of concentrates and submit actual or proposed smelter contracts, if available.

15. Submit any available informative data not covered in the preceding paragraphs. **None.**

16. NAMES AND ADDRESSES OF OFFICERS, DIRECTORS, OR PARTNERS, AND IN ADDITION THERETO, THE FIVE LARGEST STOCKHOLDERS IF A CORPORATION:

Name and Address	Official Title (If officer is also director, indicate by "D")	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year	Estimated Net Worth Outside of Applicant	Number of Shares Held in Applicant		Life Insurance Carried for Benefit of Applicant	
				Common	Preferred	Amount	Net Cash Surrender Value After Loans
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
K. P. Sexton, Baxter Springs, Ks.	Partner	None					None
W. E. Lykins, Commerce, Okla.	Partner	None					None
G. R. Scott, Miami, Okla.	Partner	None					None
Naomi Williams, Commerce, Okla.	Partner	None					None
C. E. Stover, Miami, Okla.	Partner	None					None
	Total		x x x x			x x x x	x x x x

WOLVERINE MINING COMPANY

CALCULATIONS

(1)	340 x 150	=	51,000 Sq. Ft.
(2)	142 x 51	=	7,242 Sq. Ft.
(3)	156 x 34	=	5,304 Sq. Ft.
(4)	32 x 29	=	928 Sq. Ft.
(5)	52 x 40	=	2,080 Sq. Ft.
(6)	160 x 56	=	8,960 Sq. Ft.
	Total		75,514 Sq. Ft.

Average Ht.	21.25
Cu. Ft.	1,604,673
Deduct 15% Pillars	.85
Cu. Ft.	1,363,972 (12.5 Cu. Ft. equal One Ton)
Rock Tons (Ore)	109,118
Average Recovery	6%
Tons ZnS Conc.	6,547
Tri-State Market Price Per Ton	$115.00
Gross Value	$752,905.00

Tons Ore Rock	Value Per Rock Ton	Estimated Production Cost Per Rock Ton	Est. Profit Per Rock Ton	Total Est. Profit
109,118	$6.90	4.25	2.65	$315,662.00
Deduct Royalty 10%				75,290.00
				$240,272.00
Amortization of Loan @ 40¢ Per Rock Ton until Paid				40,000.00
		Net Profit before Taxes		$200,272.00

Note: The above calculations might be subject to mill efficiency which varies with the grade of mill heads. 5% to 6% ore is milled quite efficiently. Tri-State milled concentrates' price is based on 60% zinc content whereas uncontaminated zinc sulfide contains 66⅔% zinc metal. It is generally accepted that the value of pure ZnS in place as against 60% base concentrates diluted in milling, offsets milling loss.

WOLVERINE MINING COMPANY

CALCULATIONS

Area A (See Exhibit #5)

Hole #	Ht.	Av. Assay ZnS		
F10	10	x 7.96	-	79.60
F9	15	x 4.24	-	63.60
F8	7.5	x 9.30	-	69.67
F4	10	x 3.97	-	39.70
F5	10	x 4.24	-	42.40
4B	20	x 9.91	-	198.20
5B	15	x 4.82	-	72.30
7B	-	-		-
	87.5			565.47
Average	12.5 ft.			6.46%

Note: The square area of Block A' is included with Block A and the average height and grade found for Block A used for tonnage calculation rather than the rich assay shown for drill hole 7B. There appears to be some discrepancy between the drill log and the assay record for hole 7B at 140 to 155 feet. Data for drill holes 4B and 5B is used in Area A calculations due to mineralized fractures along the mine wall bordering the area.

Area B

Hole #2	30	x 6.77	-	203.10
Hole #3	30	x 5.12	-	153.60
	60			356.70
Average	30 ft.			5.94%

Note: Tonnage and grade calculations for Area B are based on drill holes No. 2 and 3. The log for hole 6B is submitted in support but not used. The mine wall bordering this area shows mineralization substantiating calculations.

Area A	12.5	x 6.46	-	80.75
Area B	30.0	x 5.94	-	178.20
	42.5			258.95
Average	21.25 ft.			6.0%

Note: Visual examination of the old workings indicate considerable roof ore obtainable consistent in grade to accompanying calculations.

Drill hole logs for only those holes considered mineable at this time are submitted with this application. Logs of all drilling available.

Wolverine Mining Company (Uninc.)
P. O. Box 397
Picher, Oklahoma

Form MF-102 (Supplemental Sheets)

12. (a) Possibly some drilling will be carried on after mine is in production.

13. (a) Jumbo drilling if obtainable, otherwise post drilling, slusher loading, and rope haul to shaft.

(b)

Total mining	$2.10 per ton
Pumping	0.20 Per ton
General and Overhead	0.15 Per ton
Surface hauling and Milling	1.80 Per ton
Total Cost	$4.25 Per Ton

(c) Thirty days to reach production.

14. Eagle-Picher Central Mill, sink-float method. Flotationproduct. Marketed by Eagle-Picher.

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	$	$	$		

17. COMPENSATION SCHEDULE:

Instructions: The schedule shall show the amount of compensation being paid to all employees of applicant receiving compensation at a rate in excess of $5,000 per annum computed on a full-time basis. Any compensation in excess of this amount must receive Government approval.

18. COLLATERAL OFFERED AS SECURITY FOR LOAN: **See attached data.**

Brief Description	Date Acquired	Cost to Applicant	Present Net Book Value	Appraised	State by Whom Appraised and Date
Real estate (describe):					
		$	$	$	
Buildings (describe):					
Machinery, equipment, and other chattels exclusive of office furniture and fixtures (describe):					

Future Production Description	Date Expected To Reach Full Production	Gross Value	Net Value

19. CURRENT FINANCIAL STATEMENT:

ASSETS		LIABILITIES	
Current:		Current:	
1. Cash	$	1. Notes payable	$
2. Notes receivable		2. Accounts payable	
3. Accounts receivable		3. Other	
4. Inventories		4. Accrued (interest, taxes, rent, etc.)	
Total		Total	
Fixed and Other:		Fixed and Other:	
5. Plant — Lands		5. Mortgage debt	
5. Plant — Buildings		6. Contracts, leases, royalty	
5. Plant — Ores		7. Other (describe)	
6. Machinery		Total	**None**
7. Equipment, furniture, etc			
Total	**None**	10. Contingent (describe)	

20. CONDENSED COMPARATIVE STATEMENT OF INCOME AND EXPENSES:

For years ended _____
(Insert date of end of fiscal year)

(000.00 omitted)

	(Figures for 3 Preceding Years)			Current Year as of Date of Financial Statement
	19____	19____	19____	
1. Net sales of ores or concentrates				
2. Cost of production				
3. Gross profit on sales (line 1 minus line 2)				
4. Other income (itemize)	INAPPLICABLE			
5. Total (line 3 plus line 4)				
6. Salaries (officers or partners)*	No past experience with this lease.			
7. Selling and all other expenses				
8. Total of lines 6 and 7				
9. Profit or loss before depreciation and Federal taxes (line 5 minus line 8)				
10. Depreciation				
11. Federal income and excess profits taxes				
12. Net profit or loss (line 9 minus lines 10 and 11)				

NOTE.—If applicant is incorporated an analysis of surplus should be given in detail for each of the years shown in the above tabulation.

*To include all payments of any kind (commissions, bonuses, withdrawals) to officers or partners.
NOTE.—If years included in the above tables are not adequately representative of applicant's financial experience, information may be submitted for additional years.

21. NOTES PAYABLE, MORTGAGE DEBT, AND LIENS: NONE.
List notes payable, giving maturity dates, amounts, character of collateral and names of guarantor(s) and/or endorser(s). Give names and addresses of holders of notes.
List names and addresses of holders of mortgages, maturity dates, interest rates, amounts paid and amounts unpaid.
List names and addresses of holders of liens against production, quantity involved, amounts of principal and interest due and dates of repayment.

22. AGREEMENT AS TO COMPENSATION FOR SERVICES RENDERED OR TO BE RENDERED TO APPLICANT IN CONNECTION WITH APPLICATION AND/OR LOAN: NONE.
No fees or commission shall be paid by applicant for the purpose of procuring a loan. Reasonable compensation may be made for proper services actually rendered to applicant in preparing this application. If such services have been rendered, state kind of services and charges for same. Applicant agrees that all such compensation intended to be paid from the proceeds of the loan, if granted, shall be subject to approval by the Government.

_____
(Applicant)

23. The applicant hereby certifies that the statements made in the foregoing application and all exhibits and documents submitted in connection therewith are true and correct statements to the best of applicant's information and belief and are submitted as a basis for credit.

Dated June 27, 1951

Witness: R. A. Bates

Witness: B. E. Barbee

(For individual applicants)

_____
(Signature)

(For partnership applicants)

Wolverine Mining Company (Uninc.)
(Full name of firm)

By K. P. Sexton, a general partner
(Signature) K. P. Sexton
(For corporate applicants)

[CORPORATE SEAL]

_____
(Full corporate name of applicant)

Attest.

By _____ _____
(Signature) (Title)

_____ _____
(Signature) (Title)

The United States Criminal Code, 18 U. S. C., Sec. 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.

16—64195-1 U. S. GOVERNMENT PRINTING OFFICE

Form MF-100
(May 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 1780 X

Date received 7-21-51

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

Wolverine Mining Company (Unino.)
P. O. Box 397
Picher, Oklahoma

Name and address of applicant

Date June 28, 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) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (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

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? ZnS Concentrate
   (*b*) What are the byproducts, if any? None
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: See data accompanying Form MF-102
   (*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: See data accompanying Form MF-102.
   (*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. No.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☒ Lessee.
   - ☐ Contractor.
5. Number of years in production Not in production.

   If not in production or operation, estimated date when production will begin 30 days after approval of loan.
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 Partners have been connected with major Tri-State operating companies for 15 to 25 yrs. Experience covers mine operation, engineering, supervision and management.
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.

   See data accompanying Form MF-102

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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)
K. P. Sexton, Baxter Springs, Ks.	Partner	None					None
W. E. Lykins, Commerce, Okla.	Partner	None					None
G. R. Scott, Miami, Okla.	Partner	None					None
Naomi Williams, Commerce, Okla.	Partner	None					None
C. E. Stover, Miami, Okla.	Partner	None					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: None - inapplicable

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: No production experience.

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)					
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. New Production of 5,000 tons rock per month.

12. Ore or Mineral Reserves: See data accompanying Form MF-102

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

(*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)	109,118	6.0% ZnS	6.90	6.90	$4.25
Indicated (probable)					

(*c*) If placer: Inapplicable.

(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: Maximum of 5 miles. All weather roads throughout district.
Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply: Adequate supply - mine water and creek.
State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power: Empire District Electric Company (Negotiated rate based on consumption)
State amount of power used, rate per hour, and source thereof.

16. Labor: 12 to 15 miners.
State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities: None at present.

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.
None.

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.

Wolverine Mining Company (Uninc.)
(Name of company)

By K. P. Sexton
(Signature of authorized official)
K. P. Sexton

June 28, 1951
(Date)

General Partner
(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

EXHIBIT NO. 5

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-10

S. E. Henderson, driller. Started October 26, finished November 2, 1925.

From	To	
0'	14'	Soil and clay
14	45	Gray limestone
45	65	Limestone and flint
65	75	White chalky flint
75	100	Limestone and flint
100	105	Open ground, no cuttings
105	115	White and gray flint. Loose
115	125	White and gray flint, shaly limestone. Loose
125	140	White and gray flint. Loose
140	160	Flint and soft gray limestone
160	165	White and bluish flint
165	175	White, bluish and some black flint, ZnS ore (a little chatty)
175	177½	White and bluish flint and ZnS shines
177½	190	White and gray flint
190	197	Limestone and flint

No water

Assay	ZnS
165-170	9.30
170-172½	8.40
172½-175	4.85
175-177½	3.90
Average 10'	7.96%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-9

S. E. Henderson, driller. Started October 17, finished October 24, 1925.

From	To	
0'	15'	Soil and clay
15	25	Shale
25	50	Sandstone
50	60	Gray limestone
60	80	Limestone and flint
80	105	Gray, blue and yellow flint. Loose
105	110	Limestone and flint
110	130	Gray flint
130	140	Blue flint, few ZnS shines
140	150	Gray, blue and yellow flint
150	160	White and gray flint and ZnS shines
160	165	White, gray and black flint and ZnS shines (chatty)
165	175	White flint and ZnS shines
175	185	White flint
185	194	Limestone and flint

No water

	Assay	ZnS
	150-155	2.10
	155-160	2.01
	160-162½	7.02
	162½-165	3.99
	165-170	2.70
	170-175	4.53
Average	15'	4.24%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-8

S. E. Henderson, driller. Started October 8, finished October 16, 1925.

From	To	
0'	5'	Soil and clay
5	55	Shale
55	70	Limestone and flint
70	125	White limestone and flint
125	140	White limestone and silicified chloritic limestone
140	155	White and brown flint and some little limestone
155	162½	White and bluish flint, some jasperoid, ZnS ore (chatty)
162½	185	White and gray flint and few ZnS shines
185	190	White flint
190	204	Brown limestone and flint

No water

	Assay	ZnS
	155-160	9.00
	160-162½	9.87
Average	7½'	9.3%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-4

R. A. Swartz, driller. Started September 1, finished September 18, 1925.

From	To	
0'	12'	Soil and clay
12	25	Boulders and clay
25	95	Limestone and flint
95	105	Open ground, no cuttings
105	110	Blue flint. Loose
110	125	Open ground, no cuttings
125	135	Blue and white flint and ZnS shines
135	140	Open ground, no cuttings
140	150	White and bluish flint
150	155	Open ground, no cuttings
155	195	Blue flint and ZnS shines
195	209	Limestone and flint

Struck water at 200' (weak), stands at 200'

	Assay	ZnS
	125-130	4.29
	130-132½	4.65
	132½-135	2.64
Average	10'	3.97%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole F-5

S. E. Henderson, driller. Started September 22, finished Sept. 30, 1925.

From	To	
0'	8'	Soil and clay
8	15	Boulders and clay
15	55	Gray limestone
55	100	Limestone and flint
100	105	Blue and gray flint
105	115	Blue and white flint and ZnS shines
115	125	White flint, few ZnS shines
125	130	Open ground, no cuttings
130	155	White flint. Loose
155	180	White and gray flint
180	190	White and bluish flint and ZnS shines
190	200	White flint, brown limestone
		No water

	Assay	ZnS
	105-110	4.86
	110-115	3.62
Average	10'	4.24%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole 4-B

I. L. Wyatt, driller. Started February 23, finished March 12, 1923.

From	To	
0'	25'	Clay and boulders
25	60	Lime
60	80	Lime and flint
80	90	Shelly white flint
90	95	Shelly blue flint
95	115	Shelly brown flint
115	120	Shelly blue brown flint
120	125	Hard brown flint
125	130	Shelly blue brown flint
130	135	Hard white flint - jack shines
135	140	Hard white flint - jack shines
140	145	Hard white flint - jack shines
145	150	Hard white flint - jack shines
150	155	Hard white flint - jack shines
155	160	Hard white flint - jack shines
160	165	Hard white flint - jack shines
165	200	Hard white flint - some lime
200	235	Hard white flint - some lime
235	250	Looser white brown flint
250	260	Hard brown flint - some lime

Water 120'

Assay	ZnS
145-150	9.00
150-155	11.50
155-160	9.65
160-165	9.51

Average 20' 9.91%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole 5-B

J. F. Renfro, driller. Started February 22, finished March 1, 1923.

From	To	
0'	10'	Red clay
10	30	Lime and flint boulders
30	90	Gray lime
90	95	Gray flint
95	105	Gray blue flint - good jack
105	135	Gray flint - jack shines
135	185	Gray flint
185	201	Gray lime

Water 150'

	Assay	ZnS
	95-100	7.55
	100-105	5.25
	105-110	1.65
Average	15'	4.82%

CRAIG - WOLVERINE

NE¼, NE¼, Sec. 33, T29N, R23E

Ottawa County, Oklahoma

Hole 7-B

E. Gates, driller. Started March 14, finished March 27, 1923.

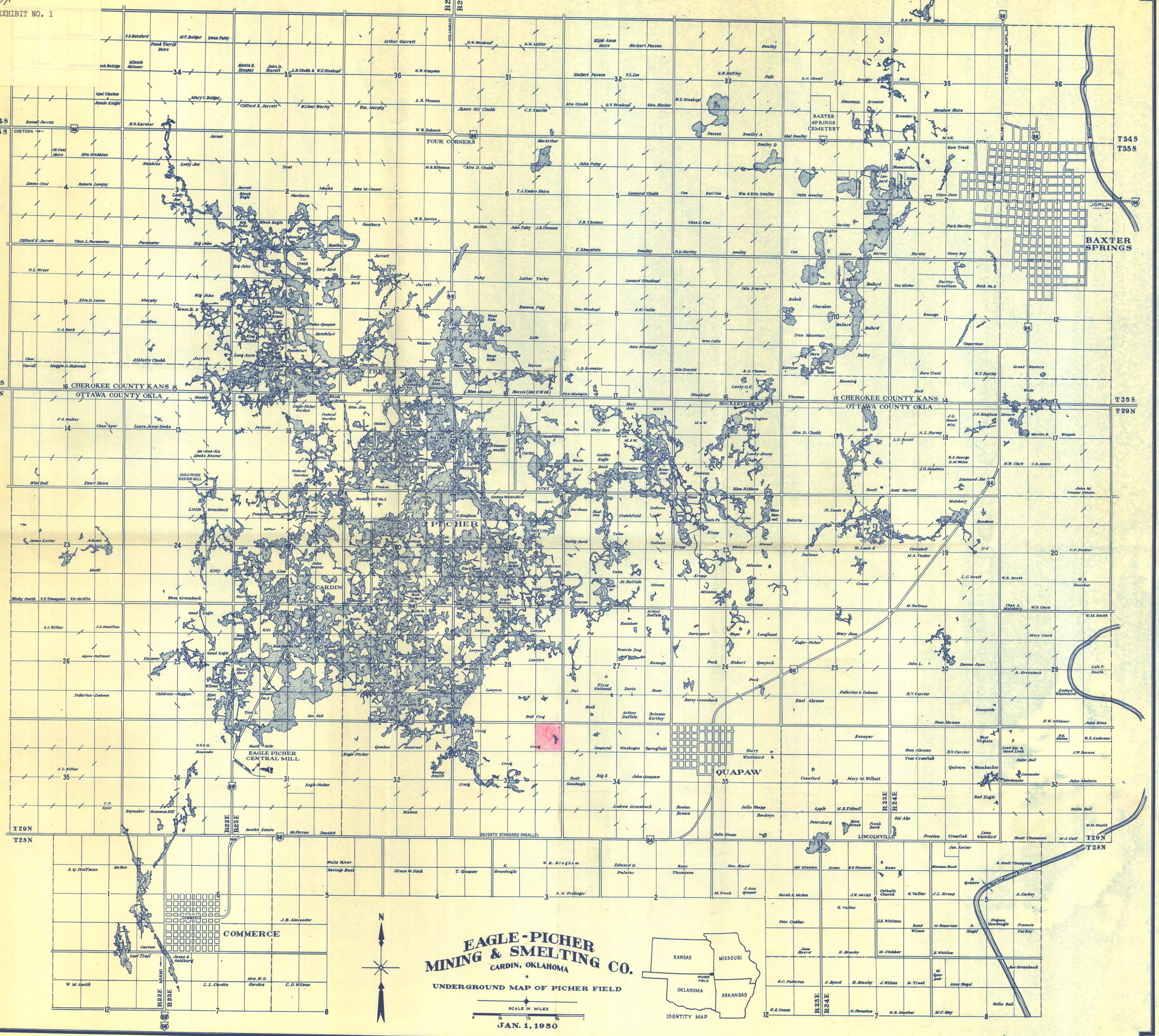
From	To	
0'	6'	Clay
6	54	Lime
54	90	Lime and flint
90	100	Blue flint
100	120	Lime and flint
120	135	Good jack
135	150	Jack shines
150	162	Good jack
162	190	Water flint

Water 155'

Assay	ZnS
120-125	15.45
125-130	13.65
130-135	9.67
135-140	10.13
140-155	12.23
155-160	10.20
160-165	11.25

dma
1780X

EXHIBIT NO. 1



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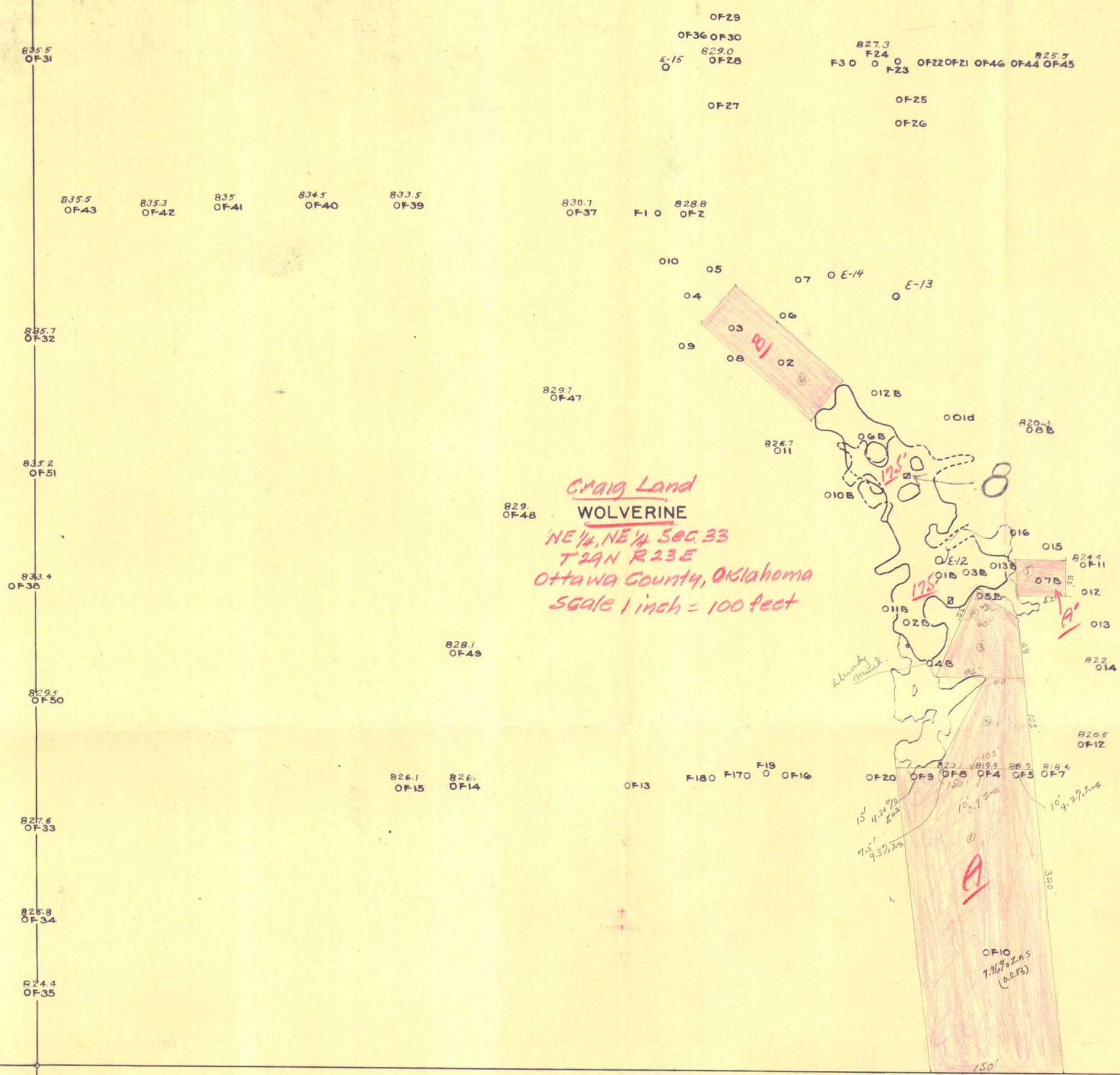
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