DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 4989

Application
- [x] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [x] Application and attachments

Right Side

- [ ] Project summary (final)
- [ ] Work Completed analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports
- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with transmittal, narrative and maps.

Folders No._____: Maps (Use pocket folder or envelope)

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

April 25, 1958

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: New Application (Copper)
Iron Mask Mining Co., Inc.
Iron Mask Mine
Bonner County, Idaho

Dear Mr. Selfridge:

Enclosed are the original and two copies of an application for aid to explore for copper at the Iron Mask mine, Bonner County, Idaho. Accompanying the application are two copies of a report on the property prepared by D. D. Kotschevar, mining engineer, which the applicant wishes returned. We are keeping one copy of the report which we will return, and are enclosing the other copy. Please return it either to us or to the applicant when it has served its purpose. Only one copy each of the Assignment of leases No. 2081 and No. 3386 were received, which are attached. Thermofax copies were made for our files.

The applicant proposes to drive 1,450 feet of drift at an approximate cost of $40 per foot to explore 405 feet below a segment of vein that has carried good values in silver. The vein in the upper workings apparently contains tetrahedrite and hematite with small amounts of malachite and limonite.

We will schedule an examination as soon as possible.

Sincerely yours,

A. E. Weissenborn
A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
Alvord

Form MF-103
Revised Feb. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1035.3
Approval expires June 30, 1958

APPLICATION FOR AID IN AN EXPLORATION PROJECT

PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

NAME OF APPLICANT (Full legal name and mailing address as it should appear on contract if one is executed)

IRON MASK MINING COMPANY, INC.
SANDPOINT, IDAHO

APPLICANT NOT TO USE THIS BLOCK

Docket Number: DMEA-4989
Date Received: 4-28-58
Government Participation %:
Region: I
Division Code: 500

BUSINESS ORGANIZATION (Check one)

- Individual [ ]
- Corporation [X]
- Partnership [ ]
- Other (Specify) [ ]

State in which firm is organized: Idaho

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
George M. Watt	Sagle, Idaho	President
Robert J. Evans	Kootenai, Idaho	Vice-Pres.
Robert W. Woods	Sandpoint, Idaho	Sec-Treas.
Gerald Sarff	Kootenai, Idaho	Director
Mary McNearney	Bonners Ferry, Idaho	Director
Harlan Churchill	Sagle, Idaho	Director

Mineral(s) for which you wish to explore: Copper

Estimated Cost of Project: $

LOCATION OF PROPERTY

Name	County	State
Iron Mask	Bonner	Idaho

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order I, Amended, "Government Aid in Defense Exploration Projects." To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 1, existing mine workings and geology in item 2, and the proposed exploration project in item 4. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 2(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest DMEA Field Office.*

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

April 24, 1958
Dated

George M. Watt
BY (Signature)

President
Title

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

(a) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all land adjacent to the proposed project area which you own or control. Describe any part of the project land or workings which should not be subject to Government lien for royalty payments. If the land consists of unpatented claims, state the book and page number for each recorded location notice, including amended locations, and the place where recorded (courthouse, recorder's office, county, and state).

(b) State all the names by which you know the property.

(c) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise. If you are not the owner, submit with this application one exact copy of the lease, contract, or other document (with address of owner) under which you control the property.

(d) Describe all liens, mortgages, or other encumbrances on the property.

2. *Physical Description:*

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the lands, including existing mine workings. Describe all production facilities.

(b) State your interest, if any, in operations stated in 2*(a)*.

(c) State, as far as you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves on the property, giving quantities and grades and sampling methods used, supporting your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you may have, indicating on each whether you require its return to you.

3. *Accessibility of Project:*

(a) To aid DMEA representatives who may be required to examine the property, state the name and address of the person who will meet the DMEA representative, give directions for reaching the property, and describe accessibility of the property including the mine workings.

(b) Name the shipping and supply points and places where employees reside and state the distances between them and the property.

4. *The Exploration Project:*

(a) Describe fully the proposed exploration project giving individual footages and sizes of openings *for each item of work*. Use narrative, maps, plans, and longitudinal and cross sections as necessary. Show the location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *property boundaries* or to the closest identifiable corner.

(b) If an access road to the project must be built, show the location on the property map and state the length, type, and construction methods proposed.

(c) In the event that an exploration contract with DMEA is executed, how soon will the work start and how many months will be required to complete it? State your anticipated average daily or monthly rate of progress for each type of work.

5. *Experience:*

State your operating experience and background with relation to your ability to carry out this exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of Costs:*

Furnish detailed estimates of the costs *for each item of the work proposed in 4(a)* under the headings listed below with a total for each heading and the estimated total cost of the project. Costs for any work to be performed by an independent contractor should be shown separately under category *(a)* below. Costs for any work that is not to be performed by an independent contractor should be given in detail under categories *(b)* through *(g)*.

(a) Independent contracts. State the cost of any proposed independent contract for the performance of all or any part of the work, expressed in units of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. *(Note* – If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. For necessary supervision, engineering and geological services, and labor, include an itemized schedule of numbers, classes, rates of wages, salaries or fees, and periods of employment. State whether these technicians and employees are available.

(c) Operating materials and supplies. List items of material and supplies with their cost. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of operating equipment to be used giving specifications and indicating how each item is to be acquired – i.e., rented, purchased, or provided by the applicant. If it is rented or purchased, state the estimated rental or purchase price. If it is to be furnished by the applicant, give its present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of necessary *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant, which will be used on the exploration project.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration project stating specifications and cost including labor, materials and supervision.

(g) Miscellaneous. For the operating equipment listed in 6*(d)*, describe the type and estimate the cost of repairs and maintenance expected during project operations. Do not repeat initial repairs listed in 6*(e)*. Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories.

Note – No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. *(a)* State whether you are prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation stated in Sec. 7 of DMEA Order-1, Amended.

(b) Explain to what extent you propose to furnish your share of the costs by providing money, by use of equipment owned by you, or otherwise.

* * * * *

1. (a) All Section 36, Township 56N, Range 2W W.B.M. State of Idaho mining leases #2081 and #3386.
   (b) Iron Mask Mining Company, Inc.
   (c) Lessee
   (d) None

2. (a) Original Iron Mask Mine claim was staked in 1886 and the tunnel listed on the map enclosed as #1 upper level was run at intervals during the next 40 years or so. This tunnel is approximately 250 feet long. The #2 level was run during this same time to 150 feet of depth with one short raise being stoped. In 1952 Mr. George Watt obtained a state mining lease and ran approximately 270 feet more on this level with the help of others who in 1957 became stockholders in mine when incorporated. At this depth of approximately 420 feet ore samples started showing marked improvement so it was decided to sink a shaft winze to about 200 feet to start it on a production basis. At 50 feet depth water was becoming a problem with available means of pumping so it was decided to go north about 1500 feet and put an audit about 500 vertical feet below #2 level. We ran a cross cut tunnel at this level and intersected vein at 230 feet, then turning south on vein we obtained approximately 50 feet of tunnel. At this point the vein is pinched and it is an additional 300 feet plus to point where outcropping shows width.

   (b) 100%
   (c) Smelter return shown on page 13 of mining engineer's report.
   (d) In #1 upper level, #2 level and on all footage in #3 lower level the vein is continuous, we have not core drilled and only have this continuous known vein as any indication of existing ores.
   (e) Shown on page 8 of Engineer's report.
   (f) Due to heavy leaching in surface showings, very little sampling was done. The major assays are shown in engineer's report. The reason we expect to find large body of ore is the fact that where tunneling has been done a continuous vein has been showing.
   (g) Enclosed find two copies of engineer's report. The return of same upon completion of your work would be appreciated.

3. (a) The following men can be contacted by DMEA representative:

Geo. M. Watt	Sagle, Idaho
Robt. Evans	Kootenai, Idaho
G. E. Sarff	Kootenai, Idaho Phone: CO 3-2091

   The entire working areas are now readily accessable with lower audit being only about 1/4 mile from good county road, and upper workings about one mile. Roads are available to each audit.
   (b) Sandpoint, Idaho, approximately 9 miles to lower level from which we expect to do any future work.

4. (a) The exploration project which we wish to promote is extending tunnel at #3 lower level approximately 1500 feet to point below existing winze in #2 level. This tunnel is now and we expect to continue at approximately 6 feet by 7 feet in size. The map in engineer's report covers this. The vein with existing workings is approximately 1/4 mile from NE corner and runs very nearly true north and south, with lower level audit approximately 1/8 mile from north line of Section.

(B) Roads all built.

In most weather roads are good, however some is single traffic.

(c) Immediately. We were running approximately 10 feet daily with 2 shifts and expect the same, so approximately 30 weeks would be required to reach point under winze in #2 level. However, upon reaching commercial ore, production would be started on such ore.

5. Our experience is limited to the workings on our property, with the lower level being run at approximately $40.00 per foot including the cost of roads. Mr. George Watt, President and General Manager, has had considerable experience in mining, doing contract work in mine near Lakeview, and leasing in various workings. He will be supervising our exploratory work.

6. (a) We wish to do this by contract, however, there are no contractors of this type available locally. Therefore, we have not obtained estimates. We feel we can contract this to an independent contractor in whole or sub-contract under our supervion using our equipment at the average cost for this type of drifting.

7. (a & b) We will be able to furnish our share of the cost. We will furnish all the equipment necessary. Balance of our share will be furnished in money or necessary supplies.

Box 411
Sandpoint, Idaho
April 24, 1958

Defense Minerals Exploration Administration
Department of the Interior
Spokane, Washington

Gentlemen:

We are enclosing herewith five (5) copies of Application for Aid in an Exploration Project for the IRON MASK MINING COMPANY, INC., Sandpoint, Idaho, together with copy of assignment and State of Idaho Mining Leases #3386 and #2081 and map of proposed work. We are also enclosing 2 sets of Engineers Reports, which we would appreciate your returning to us at your convenience.

Estimate of costs are as follows:

1500' Drifting @ $40.00	$60,000
Roads	1,000
Assaying 100 samples copper, silver @ $2.50	250
Engineering Consultant 10 days @ $75 per day	750
Total----------	$62,000

Timbering 500' @ $6-7
(Where necessary)

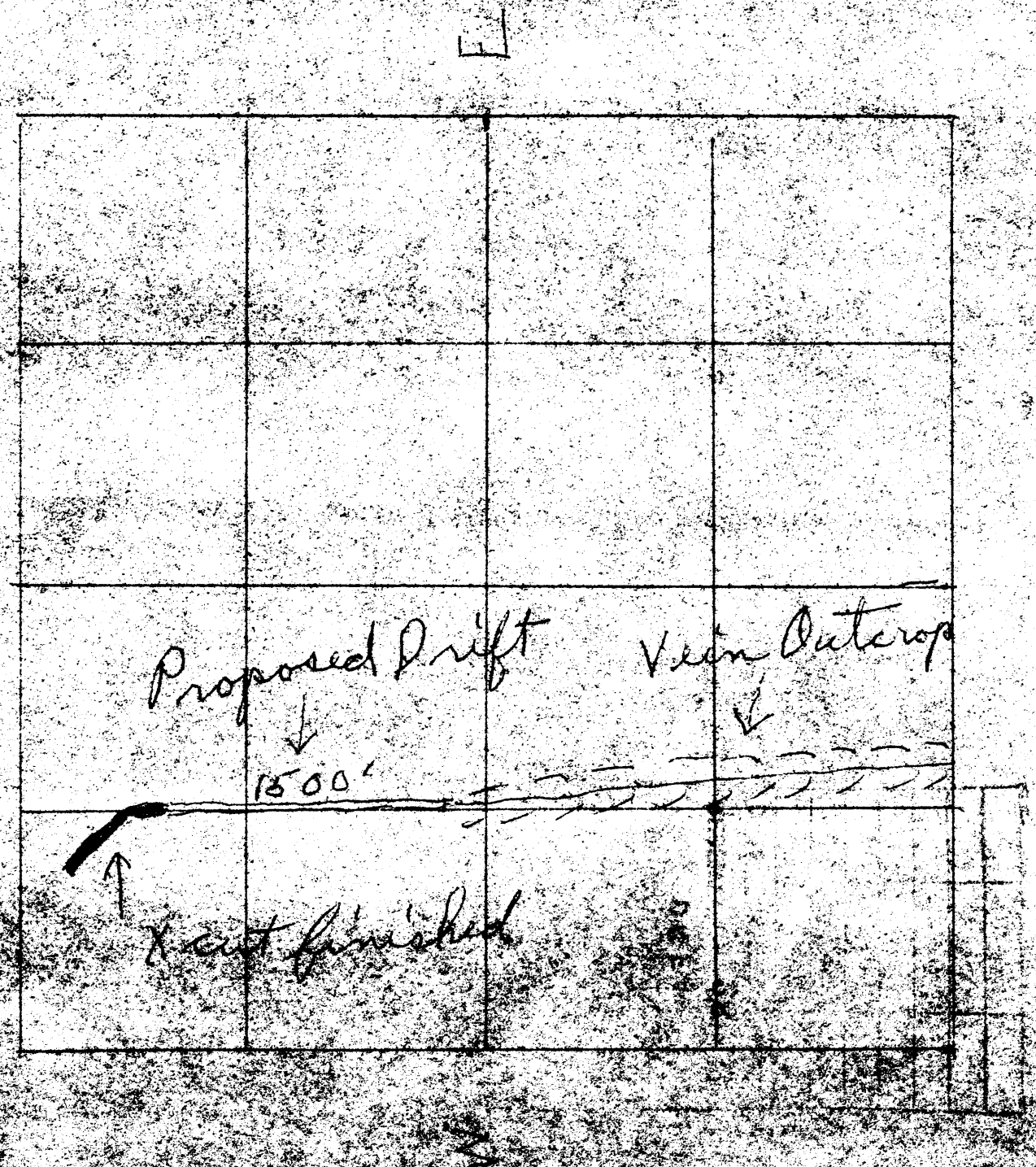
Yours very truly,

George M. Watt, President
Iron Mask Mining Co., Inc.

gmw/ch
Encl.

RECEIVED
APR 25 1958
U. S. G. S.
SPOKANE, WASH.

Section 36 Township 56 N. Range 2W B.M.



5

ASSIGNMENT Lease No. 2081

For and in consideration of ONE and no/100 ($1.00) DOLLARS and other good and valuable consideration the receipt whereof is hereby acknowledged, we, GEORGE M. WATT and ELSIE E. WATT, his wife, of Sagle, Bonner County, Idaho, do hereby transfer and assign unto the IRON MASK MINING COMPANY, and Idaho Corporation having its registered office at Sandpoint, Bonner County, Idaho that certain "State Mineral Lease-Quartz", dated July 18, 1952, by and between the STATE OF IDAHO acting through the State Board of Land Commissioners, first party and GEORGE M. WATT, second party, and which lease is identified as No. 2081, and covers the following described property situated in Bonner County, Idaho, to-wit:

W½, west 30 acres NW¼SE¼, Section 36, Township 56 North, Range 2 W.B.M. containing 350 acres.

Witness our hands this 11th day of July, 1957.

George M. Watt

Elsie E. Watt

STATE OF IDAHO)
County of Bonner)ss

On this 11th day of July, 1957, before me, the undersigned Notary Public for the State of Idaho, personally appeared GEORGE M. WATT and ELSIE E. WATT, his wife, known to me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that they executed the same.

In witness whereof I have hereunto set my hand and affixed my notarial Seal the day and year in this certificate first above written.

L. J. McArthur
Notary Public for the State of Idaho
Residing at Sandpoint, Idaho

The foregoing assignment is hereby approved this _____ day of _____ 1957.

State Board of Land Commissioners

By _____
State Land Commissioner.

MINERAL LEASE

Kind quartz No. 2081

Name George M. Watt

Address Sagle, Idaho

Assignment to

Iron Mask Mining Co.

of Sagle Idaho

Recorded August 22 1957

No. 2081

THIS INDENTURE, Made this 18th day of July, 1952, by and between the STATE OF IDAHO, actingthrough the State Board of Land Commissioners, party of the first part, hereinafter called the lessor, and

GEORGE M. WATT, Sagle, Idaho

party, of the second part, hereinafter called the lessee, under and pursuant to Title 47, Chapter 7, Idaho Code, as amended by Chapter 77, Session Laws of 1949, witnesseth:

That the party of the first part, in consideration of the rents and royalties to be paid and the covenants to be observed by the lessee, as hereinafter set forth, does lease and demise unto the lessee exclusive right and privilege to mine upon weins or lodes of quartz or other rock in place bearing gold, silver, cinnabar, lead,tin,copper or other valuable deposits, upon or under the following lands lying and situate in the County of Bonner, State Udagim nire oartucykarky described as follows, to wit;
350 acres,W½, west 30 acres NW¼SE¼, Sec.36, Twp. 56N.,Rge. 2 W.B.M.
together with the right to use and occupy so much of the surface of the said land as may be required for all purposes reasonably incident to the minning, operating and removal of said minerals upon and subject to the conditions laid down in Title 47,Chapter 7,Idaho Code, as amended by Chapter 77,Session Laws of 1949,for a period of ten(10)years from the date of this lease.

In consideration of the foregoing the lessee hereby agrees:

RENTAL 1. To pay to the lessor and annual rental for each acre covered by this lease the sum of twenty-five cents (25) per acre per annum in advance on the 1st day of July of each year, the first year's rental being EIGHTY SEVEN AND 50/100 ($87.50)Dollars payable upon the execution of this lease. Such rental paid for any year shall be credited against the royalties as they accrue for that year.

ROYALTY 2. To pay to the lessor as royalty per ton a percentage as set forth below, of the "total value"of all ores, minerals or precious metals produced from said property during the term of this lease: $0.00 to $16.00, 2.5%; $16.01 to $20.00, 3.0%; $20.01 to 25.00, 4.0%; $25.01 to $30.00,5.0%; $30.01 to $35.00, 6.0%; $35.01 to $40.00, 8.0%; $40.01 to $50.00, 10.0%; and $50.01 and up, 12.5%. The term "total value" shall be construed to mean the market value as determined by competent assay of the raw ore, mineral or precious metals. Further "total value"shall mean the appraised values of

any unsold ores, minerals or precious metals left in stockpile, awaiting a more fovorable market, at the termination of this lease. The royalty is paid on returns remaining ofter the following costs, and only these costs, are deducted: mining, beneficiation and transportation. Taxes and depreciation are not allowable. The lessee shall furnish to the lessor at the time of making any settlement duplicate copies of all mill, smelter, mint, processor or any purchasers settlement returns together with duplicate figures showing the method and amount clained under deductible cost for mining beneficiation and transportation. In the case of any ores, minerals or porcious metals left in stockpile the value shall be determined by appraisers designated by the lessor and lessee andin the case of non agreement a feferee appraiser cande chosen by the delegated appraisers.

COMMENCE OPERATIONS 3. To commence actual mining operations upon the land enbraced herein within 5 months from the execution of this lease, and thereafter to diligently prospect, develop and mine in or upon the leased land; and that all mining operations shall be done in a good and workmanlike manner, using the mostapproved methods of mining and to substantially protect all surface openings or workings where persons or animals are likely to be injured by falling therein, or endangered otherwise, except as the lessor shall otherwisedirec

ASSIGNMENT 4. This agreement shall be binding upon the heirs, administers and assigns of the lessee, and the said lessee may assign this lease, provided however, that before andy assignment shall take effect the said lessee shall secure approval of the State Board of Land Commissioners.

STATEMENTS 5. To furnish written statements in detail and in such form as may be prescribed or approved by the lessor, showing the amount, quality and value of all minerals produced during the preceding month as the basis for computing the royalties due the lessor. The leased premises and all workings, improvements, machinery and fixtures thereon or connected therewith, and all books and accounts of the lessee whenever wanted shall be open at all times for the inspection of any person duly authorized by the State Board of Land Commissioners.

REPORTS 6. To furnish annually and at such times as the State Board of Land Commissioners shall require, in the manner and form prescribed by said Board a plat showing all development work and improvements on the leased lands, and incase it is advisable to prospect by diamond drilling, and itemized statement ofactual cost of drilling, location of drill hole and a complete log of each hole drilled; and other related information with a report as to all

buildings, structures or other work place in orlupon said leased lands, accompanied by a report in detail as to the stockholders, investments, depreciation and cost of operation, together with a statement as to the amount and grade of minerals produced and sold and the amount received therefor, by operations hereunder.

BULLION 7. That all bullion taken from said premises shall be sold to the United States Mint or branch office or agency thereof, and the payment of royalties shall accompanied by a copy of the mint returns from each and every shipment.

SALES RETURNS 8. That a copy of shipment or sales returns for all minerals sold from daid premises shall accompany the royalty payment. In the event that no sale is made of certain minerals this produced and minerals left in stockpile, royalties shall be paid on these minerals at the termination of the lease, based on the highest market value duringgthe terms of this lease; market value in stockpile.

CLEAN UPS 9. It is further stipulated and agreed that the party of the second part will notify the party of the firstpart by filing a written notice with the State Land Commissioner of any clean-up at least five (5) days in advance of any and all clean-ups, and that the lessor shall have the right to have a representative or representatives present upon any dredge, machine or device used by the said lessee at the time of any and all clean-ups.

TERMINATIONS 10. To deliver up the premises leased with all permanent improvements thereon in good order and condition upon the termination of, cancellation or forfeiture of this lease.

TAXES 11. To pay when due all taxes and assessments of any kind lawfully assessed and levied under the laws of this State.

SUBJECT TO STATUTES 12. To complu and be subject in all respects to the conditions, limitations, penalties and provisions contained in Title 46, Chapter 7, Idaho Code annotated, as amended by Chapter 124, Session Laws of 1937, which are hereby made a part hereof to the same extent as if incorporated herein, and be subject also to the conditions, limitations, penalties and provisions of applicable Federal statutes and Laws of the State of Idaho regarding the operation of mines and of the provisions of the Workman's Compensation and State Fire Laws of the State of Idaho.

OTHER MINERALS 13. It is further expressly understood and agreed that the prospecting and mining rights and privileges leased as aforesaid extend to and

include only gold, silver, cinnebar, lead, tin, copper or other valuable deposit in place on lode or quartz or other rock, and that no right or privilege respecting any other kind or character of mineral or minerals are granted, or intended to be granted, by this lease, but the lessee shall promptly notify the lessor of the discovery of any valuable minerals other than those covered by lease; nor shall this lease be construed to prohibit the leasing of the lands in question for any purpose, including mining, other than for those minerals specifically covered herein.

CANCELLATIONS 14. It is further understood that upon failure to pay rentals or royalties, as herein provided, or upon failure to comply with any of the conditions, provisions or covenants of this lease, the lessor may at its option, after thirty (30) days' notice by registered mail to the lessee, or his assisgns, cancel the lease.

FORFEITURE 15. And it is further understood and agreed that upon failure or refusal of the lessee to accept the readjustment of terms and conditions demanded by the lessor at the end of the period of this lease within thirty (30) days after the expiration thereof, such failure or refusal shall work a forfeiture of any right of the lessee. Improvements, as defined by Section 47-705, Idaho Code, on expiration, cancellation or forfeiture of lease, shall become the property of the state as provided for in 47-706.

TERMINATION 16. It is further understood that the lessee may terminate this lease at any time upon giving one (1) month's notice in writing to the lessor, and upon payment of all rents and royalties and other sums due and payable to the lessor, and complying with the other terms of this lease.

EASEMENTS 17. It is further understood that there is expressly reserved the right to permit for joint or several use such easement or right of way upon, through or in the lands hereby leased, occupied or used as may be necessary or appropriate to the working of the same or of other lands containing mineral deposits, and the treatment and shipment of products thereof by or under authority of the lessor, its lessees, or permittees, and for other public purposes.

SURFACE RIGHTS 18. And there is further reserved the right to lease, sell or otherwise dispose of the surface of the lands embraced within this lease for any purpose, grazing, mining, agricultural or otherwise, insofar as said surface is not necessary for the use of the lessee in the extraction

and removal of the minerals therein, and the said lessee also agrees to take this lease subject to any outstanding leases or contracts for sale by the State of Idaho of any kind whatsoever.

WATERING HOLE 19. It is also agreed that the lessee, or his assigns, shall not at any time fence any watering place upon these lands where the same is the only accessible and feasible watering place within a radius of one (1) mile, nor shall these premises, or any part thereof, be used in such manner that the waters running in the natural streams and creeks upon said lands or waters from said lands which may reach natural streams or creeks, be polluted and made unfit for domestic or for irrigation use, and it is hereby made the duty of said lessee to see that such waters are not so polluted, or made unfit for such uses.

TIMBER 20. It is further agreed that the said lessee shall not interfere with the removal of timber purchased prior or subsequent to the issuance of this lease, nor shall the said lessee cut and/or remove any timber on said land without complying with the laws of this state respecting the cutting and/or removing of said state timber, and said lessee shall be responsible to the state and also to injured third parties for damage to state timber or timber purchased from the state and relating to the lands embraced within this lease.

SUCCESSION 21. It is further covenanted and agreed that every obligation hereunder shall extend to and be binding upon and every benefit hereof shall inure to the heirs, executors, administrators, successors or assigns of the respective parties thereto.

BOND 22. That a bond in the amount of One Thousand Dollars ($1,000.00) which may be increased to $6,000.00 when operations commence at the discretion of the State Land Commissioner, shall be furnished to guarantee the fulfillment and compliance on all terms and conditions of this lease except the payment of rental and royalties.

STATE OF IDAHO

Len Jordan
Governor and President of
State Board of Land Commissioners

Countersigned:

George M. Watt
Lessee

Ira H. Masters
Secretary of State

Edward Woozley
State Land Commissioner

State of Idaho, County of Ada, SS.

On this 4th day of February in the year 19 53 before me, a Notary Public in and for said State, personally appeared

LEN JORDAN, known to me to be the Governor of the State of Idaho and President of the State Board of Land Commissioners, and

Edward WOOZLEY, known to me to be the State Land Commissioner of the State of Idaho, that executed the said instrument and acknowledged to me that such State Board of Land Commissioners and State of Idaho executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year last above written.

M. C. Hamblin
Notary Public Residing at
Boise Idaho

My commission expires
3/5/ 19 55

State of Idaho)
County of Bonner)ss

On this 9th day of January in the year of 19 53 before me, a Notary Public in and for the State of Idaho

personally appeared George M. Watt known to me to be the person
(INDIVIDUAL - - strike out if not applicable)
whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

(PARTNERSHIP - - Strike out if not applicable)
one of the partners in the partnership of _____.
and the partner or one of the partners who subscribed said partnership's name to the foregoing instrument, and acknowledged to me that he executed the same in said partnership name.

(CORPORATION - - Strike out if not applicable)

the _____ of the corporation that executed the instrument or the person who executed the instrument on behalf of said corporation, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my officail seal the day and year first above written.

(seal)

F. G. Harrell
Notary Public for Idaho
Residing at Sandpoint

My commission expires
Nov. 22, 19 54.

ASSIGNMENT Lease No. 2081.

For and in consideration of ONE and no/100 DOLLARS and other good and valuable consideration the receipt whereof is hereby acknowledged, we GEORGE M. WATT and ELSIE E. WATT, his wife, of Sagle, Bonner County, Idaho, do hereby transfer and assign unto the IRON MASK MINING COMPANY, and Idaho Corporation having its registered office at Sandpoint, Bonner County, Idaho, that certain "State Mineral Lease=Quartz", dated July 18, 1952, by and between the State of IDAHO acting through the State Board of Land Commissioners, first party and GEORGE M. WATT, second party, and which lease is identified as No. 2081, and covers the following described property situated in Bonner County, Idaho to-wit:

W½, west 30 acres NW¼SE¼, Section 36, Township 56 North, Range 2 W.B.M. containing 350 acres.

Witness our hands this 11th day of July, 1957.

George M. Watt

Elsie E. Watt

STATE OF IDAHO)
County of Bonner)

On this 11th day of July, 1957, before me, the undersigned Notary Public for the State of Idaho, personally appeared GEORGE M. WATT and ELSIE E. WATT, his wife, known to me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that they executed the same.

In witness whereof I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written.

L. J. McArthur
Notary Public for the State of Idaho
Residing at Sandpoint, Idaho

The foregoing assignment is hereby approved this 22 day of August 1957.

State Board of Land Commissioners

By Arthur Wilson
State Land Commissioner

ASSIGNMENT OF
STATE OF IDAHO
MINERAL LEASE

For and in consideration of _____ Dollars, to us in hand paid, the receipt of which is hereby acknowledged, we hereby sell, assign and transfer unto _____ of _____ State of _____ all our right, title and interest in and to State of Idaho Mineral Lease No. _____.

Witness our hands this _____ day of _____ 195_____.

_____
Lessee

_____
Lessee

STATE OF _____)
County of _____)

On this _____ day of _____, in the year 195_____ before me, a Notary Public in and for said State, personally appeared _____ known to me to be the lessee___ that executed the within instrument, and acknowledged to me that __he__ executed the same.

IN WITNESS HEREOF, I have hereunto set my hand and seal on the day and year last above written.

_____
Notary Public for Idaho
_____ Residing at _____ Idaho.

ACCEPTANCE AND ASSUMPTION

The undersigned assignee above named assumes and accepts the obligations and conditions of the above described State Mineral Lease and separately covenants with the State of Idaho that he will abide thereby during tenure.

Witness our hands this 24th day of July 1957.

Iron Mask Mining Company
Assignee

by Robert W. Woods
Assignee Secretary

STATE OF Idaho)
County of Shoshone)ss

On this 24th day of July in the year 1957 before me a Notary Public in and for said State, personally appeared Robert W. Woods, Secretary of Iron Mask Mining Company, known to me to be the lessee...that executed the within instrument, and acknowledged to me that said corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year last above written.

H. J. Hull
Notary Public for Idaho

Residing at _____ Idaho

Recorded this 22nd day of August 1957.

Arthur Wilson
State Land Commissioner

ASSIGNMENT

Lease No.
3386

For and in consideration of ONE and no/100 ($1.00) DOLLARS and other good and valuable consideration the receipt whereof is hereby acknowledged we, GEORGE M. WATT and ELSIE E. WATT, his wife, of Sagle, Bonner County, Idaho, do hereby transfer and assign unto the IRON MASK MINING COMPANY, an Idaho Corporation having its registered office at Sandpoint, Bonner County, Idaho, that certain "State Mineral Lease Quartz" dated April 25, 1957, by and between the STATE OF IDAHO, acting through the State Board of Land Commissioners, first party and GEORGE M. WATT, second party, and which lease is identified as No. 3386, and covers the following described property situated in Bonner County, Idaho, to-wit:

Lot 1(39.58 acres), W½NE¼, SE¼NE¼, E½SE¼, SW¼SE¼, and E½E½NW½SE¼, all in one Section 36, Township 56North, Range 2 W.B.M., contain- 289.58 acres more or less Public School land.

Witness our hands this 11th day of July, 1957.

George M. Watt

Elsie E. Watt

STATE OF IDAHO)ss
County of Bonner)

On this 11th day of July 1957, before me, the undersigned Notary Public for the State of Idaho, personally appeared GEORGE M. WATT, and ELSIE E. WATT, his wife, known to me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that they are the same.

In witness whereof I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written.

L. J. McArthur
Notary Public for the State of Idaho
Residing at Sandpoint, Idaho.

The foregoing assignment is hereby approved this_____day of_____ 1957.

State Board of Land Commissioners

By_____
State Land Commissioner

RECEIVED AUG 28 1957

STATE OF IDAHO MINERAL LEASE

Type QUARTZ No. 3386

Name GEORGE M. WATT

Address Sagle, Idaho

Assignment to:

IRON MASK MINING COMPANY

of Sagle, Idaho

Recorded August 22, 1957

STATE MINERAL LEASE

QUARTZ No. 3386

THIS INDENTURE, Made this 25th day of April, 1957, by and between the STATE OF IDAHO, acting through the State Board of Land Commissioners, party of the first part, hereinafter called the lessor, and GEORGE M. WATT, Sagle, Idaho,

party of the second part, hereinafter called the lessee, under and pursuant to Title 47, Chapter 7, Idaho Code, as amended, witnesseth:

The the party of the first part, in consideration of the rents and royalties to be paid and the covenants to be observed by the lessee, as hereinafter set forth, does lease and demise unto the lessee exclusive right and privilege to mine upon veins or lodes of quarts or other rock in place bearing gold, silver, cinnebar, lead, uranium, tungsten, tin, copper, or other valuable deposits of associated minerals, upon or under more particularly described as follows, to-wit:

Lot 1 (39.58 acres) W½NE¼, SE¼NE¼, E½SE¼ and E½E¼NW¼SE¼ all in Sec. 36, Twp. 56N., Rge. 2 W.B.M., containing 289.58 acres more or less Public School land

together with the right to use and occupy so much of the surface of the said land as may be required for all purposes reasonably incident to the mining, operating and removal of said minerals upon and subject to the conditions laid down in Title 47, Chapter 7, Idaho Code, as amended, for a period of ten (10) years from the date of this lease.

In Consideration of the foregoing the lessee hereby agrees:

RENTAL: 1. To pay to the lessor as rental for each acre covered by this lease the sum of twenty-five (25¢) cents per acre per annum in advance, the first year's rental being
SEVENTY TWO AND 50/100 DOLLARS ($72.50)
payment whereof is hereby acknowledged. Such rental paid for any year shall be deducted from the royalties as they accrue for that year.

ROYALTY 2. To pay to the lessor as royalty a percentage as set forth below, of the "total value" per ton of all ores, minerals or precious metals produced from said property during the term of this lease: $0.00 to $16.00, 2.5%; $16.01 to $20.00, 3.0%; $20.01 to $25.00, 4.0%; $25.01 to $30.00 5.0%; $30.01 to $35.00, 6.0%; $35.01 to $40.00, 8.0%; $40.01 to $50.00, 10%; and $50.01 and up, 12.5%. The term "total value" shall be construed to mean the market value as determined by competent assay of the raw ore mineral or precious metals. Further "total value" shall mean the appraised values of any unsold ores, minerals or precious metals left in stockpile, awaiting a more favorable market, at the termination of this lease. The royalty is paid on returns remaining after the following costs, and only these costs, are deducted: mining, beneficiation and transportation. Taxes and depreciation are not allowable. The lessee shall furnish to the lessor at the time of making any settlement duplicate copies of all mill, smelter, mint, processor or any purchaser's settlement returns together with duplicate figures showing the method and amount claimed under deductible cost for mining, beneficiation and transportation. In the case of any ores, minerals or precious metals left in stockpile the value shall be determined by appraisers designated by the lessor and lessee and in the case of non-agreement a referee appraiser can be chosen by the delegated appraisers.

COMMENCE
OPERATIONS 3. To commence actual mining operations upon the land embraced herein within 6 months from the execution of this lease, and thereafter to diligently prospect, develop and mine in or upon the leased land; and that all mining operations shall be done in a good and workmanlike manner, using the most approved methods of mining and to substantially protect all surface openings or workings where persons or animals are likely to be injured by falling therein, or endangered otherwise, except as the lessor shall otherwise direct.

ASSIGNMENT 4. This agreement shall be binding upon the heirs, executors, administrators and assigns of the lessee, and the said lessee may assign

this lease, provided, however, that before any assignment shall take effect the said lessee shall secure approval of the State Board of Land Commissioners.

STATEMENTS 5. To furnish written statements in detail and in such form as may be prescribed or approved by the lessor, showing the amount, quality and value of all minerals produced during the preceding month as the basis for computing the royalties due the lessor. The leased premises and all workings, improvements, machinery and fixtures thereon or connected therewith, and all books and accounts of the lessee whenever wanted shall be open at all times for the inspection of any person duly authorized by the State Board of Land Commissioners.

REPORTS 6. To furnish annually and at such times as the State Board of Land Commissioners shall require, in the manner and form prescribed by said Board a plat showing all development work and improvements on the leased lands, and in case it is advisable to prospect by diamond drilling, an itemized statement of actual cost of drilling, location of drill hole and a complete log of each hole drilled; and other related information with a report as to all buildings, structures or other work placed in or upon said leased lands, accompanied by a report in detail as to the stockholders, investments, depreciation and cost of operation, together with a statement as to the amount and grade of minerals produced and sold and the amount received therefor, by operations hereunder.

BULLION 7. That all bullion taken from said premises shall be sold to the United State Mint or branch office or agency thereof, and the payment of royalties shall be accompanied by a copy of the mint returns from each and every shipment.

SALES RETURNS 8. That a copy of shipment or sales returns for all minerals sold from said premises shall accompany the royalty payment. In the event that no sale is made of certain minerals thus produced and the minerals left in stockpile, royalties shall be paid on these minerals at the termination of the lease, based on the highest market value, in stockpile, during the terms of this lease.

CLEAN-UPS 9. It is further stipulated and agreed that the party of the second part will notify the party of the first part by filing a written notice with the State Land Commissioner of any clean-up at least five (5) days in advance of any and all clean-ups, and that the lessor shall have the right to have a representative or representatives present upon any dredge, machine or device used by the said lessee at the time or any and all clean-ups.

TERMINATION 10. To deliver up the premises leased with all permanent improvements thereon in good order and condition upon the termination of, cancellation or forfeiture of this lease.

TAXES 11. To pay when due all taxes and assessments of any kind lawfully assessed and levied under the laws of this State.

SUBJECT TO STATUTES 12. To comply and be subject in all respects to the conditions, limitations, penalties and provisions contained in Title 47, Chapter 7, Idaho Code Annotated, as amended, which are hereby made a part hereof to the same extent as if incorporated herein, and be subject also to the conditions, limitations, penalties and provisions of applicable Federal statutes and Laws of the State of Idaho regarding the operations of mines and of the provisions of the Workmen's Compensation and State Fire Laws of the State of Idaho.

OTHER MINERALS 13. It is further expressly understood and agreed that the prospecting and mining rights and privileges leased as aforesaid extend to and include only gold, silver, cinnebar, lead, uranium, tungsten, tin, copper or other valuable deposits of associated minerals, in place on lode or quartz or other rock, and that no right or privilege respecting any other kind or character of mineral or minerals is granted, or

intended to be granted, by this lease, but the lessee shall promptly notify the lessor of the discovery of any valuable minerals other than those covered by lease; nor shall this lease be construed to prohibit the leasing of the lands in question for any purpose, including mining, other than for those minerals specifically covered herein.

CANCELLATIONS 14. It is further understood that upon failure to pay rentals or royalties, as herein provided, or upon failure to comply with any of the conditions, provisions or covenants of this lease, the lessor may at its option, after thirty (30) days' notice by registered mail to the lessee, or his assigns, cancel the lease.

FORFEITURE 15. And it is further understood and agreed that upon failure or refusal of the lessee to accept the readjustment of terms and conditions demanded by the lessor at the end of the period of this lease within thirty (30) days after the expiration thereof, such failure or refusal shall work a forfeiture of any right of the lessee. Improvements, as defined by Section 47-705, Idaho Code, on expiration, cancellation or forfeiture of lease, shall become the property of the state as provided for in 47-706.

TERMINATION 16. It is further understood that the lessee may terminate this lease at any time upon giving one (1) month's notice in writing to the lessor, and upon payment of all rents and royalties and other sums due and payable to the lessor, and complying with the other terms of this lease.

EASEMENTS 17. It is further understood that there is expressly reserved the right to permit for joint or several use such easement or right of way upon, through or in the lands hereby leased, occupied or used as may be necessary or appropriate to the working of the same or of other lands containing mineral deposits, and the treatment and permittees, and for other public purposes.

SURFACE RIGHTS 18. And there is further reserved the right to lease, sell or otherwise dispose of the surface of the lands embraced within this lease for any purpose, grazing, mining, agricultural or otherwise, insofar as said surface is not necessary for the use of the lessee in the extraction and removal of the minerals therein, and the said lessee also agrees to take this lease subject to any outstanding leases or contracts for sale by the State of Idaho of any kind whatsoever.

WATERING HOLE 19. It is also agreed that the lessee, or his assigns, shall not at any time fence any watering place upon these lands where the same is the only accessible and feasible watering place within a radius of one (1) mile, nor shall these premises, or any part thereof, be used in such manner that the waters running in the natural streams and creeks upon said lands or waters from said lands which may reach natural streams or creeks, be polluted and made unfit for domestic or for irrigation use, and it is hereby made the duty of the said lessee to see that such waters are not so polluted, or made unfit for such uses.

TIMBER 20. It is further agreed that the said lessee shall not interfere with the removal of timber purchased prior or subsequent to the issuance of this lease, nor shall the said lessee cut/and or remove any timber on said land without complying with the laws of this state respecting the cutting and/or removing of said state timber, and said lessee shall be responsible to the state and also to injured third parties for damage to state timber or timber purchased from the state and relating to the lands embraced within this lease.

SUCCESSION 21. It is further covenanted and agreed that every obligation hereunder shall extend to and be binding upon and every benefit hereof shall inure to the heirs, executors, administrators, successors or assigns of the respective parties thereto.

EXCAVATION 22. It is further agreed that there will be no use of any heavy excavating equipment for the prospecting of the surface of this

lease. In the event that the lessee desires to so prospect he must secure the written approval of the lessor, outlining his method and the area to be excavated.

BOND 23. It is hereby further agreed that upon execution of this lease, the lessee shall provide a surety bond in the sum of ONE THOUSAND ($1,000.00) and shall furnish same to guarantee the fulfillment of and compliance with all terms and conditions of this lease except the payment of rental and royalties.

STATE OF IDAHO

Robert E. Smylie
Governor and President of
State Board of Land Commissioners

Countersigned:

JAS. H. YOUNG
Secretary of State

ARTHUR WILSON
State Land Commissioner

George M. Watt

Lessee

State of Idaho, County of Ada, SS.

On this 7th day of June in the year 19 57 before me, a Notary Public in and for said State, personally appeared

Robert E. Smylie, known to me to be the Governor of the State of Idaho and President of the State Board of Land Commissioners, and

Arthur Wilson, known to me to be the State Land Commissioner of the State of Idaho, that executed the said instrument and acknowledged to me that such State Board of Land Commissioners and State of Idaho executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year last above written.

(seal)

Nell Elison
Notary Public residing at
Boise Idaho

My commission expires

3/25 19 61

State of Idaho)
County of Bonner)ss

On this 28th day of May, in the year 19 57 before me, a Notary Public in and for the State of Idaho

personally appeared George M. Watt known to me to be the person
(INDIVIDUAL - - Strike out if not applicable)
whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

(PARTNERSHIP - - Strike out if not applicable)
one of the partners in the partnership of _____, and the partner or one of the partners who subscribed said partnership's name to the foregoing instrument, and acknowledged to me that he executed the same in said partnership name.

(CORPORATION - - Strike out if not applicable)
the _____ of the corporation that executed the instrument or the person who executed the instrument on behalf of said corporation, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

L. J. McArthur
Notary Public for Idaho
Residing at Sandpoint, Idaho

My commission expires

April 15 1960

ASSIGNMENT

Lease No. 3386

For and in consideration of ONE and no/100 ($1.00) DOLLARS and other good and valuable consideration the receipt whereof is hereby acknowledged we, GEORGE M. WATT and ELSIE E. WATT, his wife, of Sagle, Bonner County, Idaho, do hereby transfer and assign unto the IRON MASK MINING COMPANY, and Idaho Corporation having its registered office at Sandpoint, Bonner County, Idaho, that certain "State Mineral Lease Quartz" dated April 25, 1957, by and between the STATE OF IDAHO, acting through the State Board of Land Commissioners, first party and GEORGE M. WATT, second party, and which lease is identified as No. 3386, and covers the following described property situated in Bonner County, Idaho, to-wit:

Lot 1 (39.58 acres), W½NE¼, SE¼NE¼, E½SE¼, SW¼SE¼, and E½E½NW¼SE¼, all in Section 36, Township 56 North, Range 2 W.B.M., containing 289.58 acres more or less Public School Land.

Witness our hands this 11th day of July, 1957.

George M. Watt

Elsie E. Watt

STATE OF IDAHO)
County of Bonner)ss

On this 11th day of July, 1957, before me, the undersigned Notary Public for the State of Idaho, personally appeared GEORGE M. WATT, and ELSIE E. WATT, his wife, known to me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that they executed the same.

In witness whereof I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written.

L. J. McArthur
Notary Public for the State of Idaho
Residing at Sandpoint, Idaho

The foregoing assignment is hereby approved this 22 day of August 1957.

State Board of Land Commissioners

By Arthur Wilson
State Land Commissioner

ACCEPTANCE AND ASSUMPTION

The undersigned assignee above named assumes and accepts the obligations and conditions of the above described State Mineral Lease and separately covenants with the State of Idaho that he will abide thereby during tenure.

Witness our hands this 24th day of July 1957.

IRON MASK MINING COMPANY
Assignee

By Robert W. Woods
Assignee Secretary

STATE OF Idaho)
COUNTY OF Shoshone)ss

On this 24th day of July in the year 1957, before me a Notary Public in and for said State, personally appeared Robert W. Woods, Secretary of the Iron Mask Mining Company, known to me to be the lessee that executed the within instrument, and acknowledged to me that said corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year last above written.

H. J. Hull
Notary Public for Idaho
Residing at Wallace, Idaho

Recorded this 22 day of August 1957

Arthur Wilson
State Land Commissioner

Form 7
(2-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/26	Klugescheid	500
	Vignard	500
6/27	Selfridge	130
6/27	Lasch	130
6/27	Kilsgaard	130
"	Johnson	110
"	Mittendorf	100
		220

JUN 27 1958

Mr. George M. Watt, President
Iron Mask Mining Company, Inc.
Sagle, Idaho

Re: Docket No. DMEA-4989 (Copper)
Iron Mask Mining Company, Inc.
Iron Mask Mine
Bonner County, Idaho

Dear Mr. Watt:

Your application for aid for an exploration project and other data available to us in Washington concerning your above-named property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting a small amount of copper mineralization on your property, indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

As requested, we are returning to you the report by D. D. Kotschevar, E. M., dated February 20, 1958.

We wish to thank you for your interest in the Defense Mineral Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

WPKlugescheid/er 6/25/58
Copy to: Docket
Admr R File
Op. Committee
Mr. McMahon, USBM
Mr. Kiilsgaard, USGS
Region I (2)
Chron.

Enclosure

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code

June 25, 1958

Memorandum for the Files

From: W. P. Klugescheid, Division of Base Metals

Subject: Justification for Denial of Application, (Copper) Docket No. DMEA-4989, Iron Mask Mining Company, Iron Mask Mine, Bonner County, Idaho.

The cited application, dated April 24, 1958, was received in this office on April 29.

The property was examined on April 30, by G. G. Waddell, Bureau of Mines, and H. F. Albee, Geological Survey.

The Applicant proposed to explore the property by 1500 feet of drifting on the #3 or lower level, including 500 feet of timbering and some road work. The total estimated cost of the project was $62,000.00.

The copper-bearing minerals on the Iron Mask property are found in thin fissure veins parallel to the bedding planes. In some places two or three veins parallel each other; in others they form en echelon pattern. The mineralized parts of the veins thicken and thin both laterally and on dip, ranging in width from a feather edge to 6 inches. The Applicant reports a thickness of 12 inches in a winze but this could not be verified as the winze was full of water.

The vein filling contains minor amounts of malachite, pyrite, and chalcopyrite. Seven samples were taken during the examination with the following results:

Sample No.	Length (feet)	Gold (oz./ton)	Silver (oz./ton)	Copper %
GGW-8D	1.5	Tr.	28.8	0.16
GGW-9D	0.3	0.01	22.2	0.05
GGW-10D	1.0	Tr.	12.0	0.12
GGW-11D	2.4	Tr.	2.9	0.03
GGW-12D	1.5	0.01	0.8	Tr.
GGW-13D	1.5	Tr.	1.4	Tr.
GGW-14D	0.3	Tr.	0.5	Nil

All samples were taken in the zone of oxidation. Even if the copper content were high, the small size of the veins would preclude any possibility of an economic operation based on copper. This mine is essentially a silver prospect.

The examining team recommends denial of the application in which the Field Team and the commodity members of the Geological Survey and the Bureau of Mines concur. We also concur with these findings.

W. P. Klugescheid

W. P. Klugescheid

CC: Admr R. File

8623

DMEA
RECEIVED JUN 19 1958
DATE | INITIALS | CODE
6/19 C 220
6/19 500

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

June 18, 1958

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: Commodity Specialist, Branch of Base Metals

Subject: Review of Field Examination Report, Docket No. DMEA 4989 (copper-silver), Iron Mask Mining Co., Inc., Iron Mask Mine, Bonner County, Idaho. $62,000.

The field examination made on the subject property revealed that although the mineralized section observed and sampled in the applicant's crosscut was in a zone of oxidization there was only a small amount of secondary minerals present and the veins were too small and precluded any chance of discovering an economic copper deposit. Accordingly, the examiners recommend denial of the application.

I concur with that recommendation.

A. D. McMahon

A. D. McMahon

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard, U. S. G. S.
F. D. Lamb
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

OFFICIAL FILE COPY
IN REPLY REFER TO:
DMEA
RECEIVED JUN 16 1958

DATE	INITIALS	CODE
6/16	C	220
~~6/17~~	~~[illegible]~~	~~500~~

Memorandum

June 13, 1958

To: W. R. Griswold, Defense Minerals Exploration Administration

From: T. H. Kiilsgaard, U. S. Geological Survey

Subject: Field Examination Report, Docket No. DMEA 4989 (Copper-Silver), Iron Mask Mine, Bonner County, Idaho.

Field examiners report that the Iron Mask Mine was staked in 1886 and that it has been prospected intermittently since then. The mine has been developed on three levels by a combined 800 feet of drifting and crosscutting, and 150 feet of raising and winzing. A small but unknown amount of ore is reported to have been produced from a raise connecting the upper and middle levels. In addition to this, a 993 pound hand-cobbed shipment was made to the Tacoma Smelter in 1957, which assayed 0.04 oz. gold, 178.78 oz. silver, and 2.11 percent copper.

The examiners found the property to be on a persistent although weak structure. Ore minerals, chiefly silver-bearing, are scattered along this structure but not in amounts that indicate a significant deposit. The examiners believe there is little likelihood of any appreciable amount of copper being found on the property.

Review of the report indicates that exploration at the Iron Mask would have little opportunity of making a significant discovery. Although known for a long time and although prospected on several different levels, the mine yet has to be productive. It would therefore seem that participation in the proposed program is unwarranted, and I recommend that the application be denied.

T. H. Kiilsgaard

T. H. Kiilsgaard

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington
June 5, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 9 1958

DATE	INITIALS	CODE
6/9	J.G.	225
6/12	[illegible]	130
6/13	C	220
~~6/13~~	~~[illegible]~~	~~500~~

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4989 (Copper-Silver)
Iron Mask Mining Co., Inc.
Iron Mask Mine
Bonner County, Idaho

Dear Mr. Selfridge:

Enclosed are three copies of a field examination report by G. G. Waddell, Mining Engineer, U. S. Bureau of Mines, and H. F. Albee, Geologist, U. S. Geological Survey, on this property.

Veins ranging in width from feather edge to 6 inches, and containing small amounts of copper occur in quartzite of the Blacktail formation, a member of the late Precambrian Belt series.

Waddell and Albee conclude that the property is essentially a silver prospect and that the chance of finding a significant amount of copper is poor. They therefore recommend that the application be denied.

We concur with the conclusions and recommendations of the examiners.

By Field Team, Region I

A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew
Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures
cc: USBM(2)
USGS(SRO)
Albee

Reviewed by
DMEA OPERATING COMMITTEE
6-12-58
(date)

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DMEA
RECEIVED JUN 9 1958

DATE	INITIALS	CODE
6/12	26	130
		220

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

June 4, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: G. G. Waddell, Mining Engineer, U. S. Bureau of Mines, and H. F. Albee, Geologist, U. S. Geological Survey

Subject: Field Examination Report, Docket No. DMEA-4989 (Copper-Silver), Iron Mask Mining Co., Inc., Iron Mask Mine, Bonner County, Idaho.

INTRODUCTION

The Iron Mask Mining Co., Inc., managed by George M. Watt, President, Box 411, Sandpoint, Idaho, made application for DMEA assistance to crosscut and drift 1,500 feet at an estimated cost of $62,000. The Iron Mask property is located in Bonner County, south and east of Sandpoint, Idaho, near the west shore of Pond Oreille Lake (fig. 1).

The property was examined by the authors on April 30 and May 1, 1958, accompanied by Mr. Watt. Donald Kotschevar, E.M., Sandpoint, Idaho, who prepared the company's engineering report, was interviewed the evening of April 30.

The applicant has crosscut to the silver-copper mineralized zone and now intends to drift in a southerly direction approximately 1,500 feet. This drifting would explore the mineralized area approximately 500 feet lower than the old workings. Later the applicant intends to raise on the "main ore shoot" without DMEA aid.

SUMMARY

The Iron Mask mine is on the west side of Pond Oreille Lake less than a mile northwest of the once famous Talache silver mine. A combined 800 feet of drifting and crosscutting and 150 feet of raising and winzing have been completed from three adit levels. There is a difference in altitude of 500 feet between the lowest and the highest adit.

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During the examination all of the workings were mapped and sampled. A Brunton and tape survey was made on the surface, starting at the most southerly outcrop of the vein and ending at the portal of the lowest workings. Only the 50-foot winze, which was filled with water, was not examined.

Most of the rock examined on the property is quartzite belonging to the Blacktail formation of the late Precambrian Belt series. Copper minerals occur in thin fissure veins parallel to the bedding planes of the enclosing quartzite. The veins thicken and thin ranging from feather edge to 6-inch widths and in places 2 or 3 closely spaced veins parallel each other. The applicant reports a vein width of 1 foot in the bottom of the winze.

A 993-pound hand-sorted ore shipment from the winze sent to the Tacoma Smelter by the applicant assayed 0.04 ounce gold and 178.78 ounces silver per ton, and 2.11 percent copper. The best material sampled by the examiners assayed a trace gold and 28.8 ounces silver per ton, and 0.16 percent copper over a width of 1.5 feet.

Although some of the copper was probably leached, it is doubtful if the copper content was ever very large. Furthermore, the small size of the veins would preclude any possibility of a significant amount of copper being found. Thus, the Iron Mask mine is essentially a silver prospect.

RECOMMENDATIONS

The examining team recommends that this application be denied.

LOCATION, ACCESSIBILITY AND LOCAL FACILITIES

The Iron Mask mine is reached by car from Sandpoint, Idaho, by traveling 5 miles south on Highway 10A, then turn east, following an improved county road for 1½ miles; from here turn to the right and follow the Talache improved county road for 4 miles; then turn to the right and follow an unimproved mine road for a quarter of a mile to the lower adit site.

The lower adit site is at an altitude of approximately 2,600 feet which is 600 feet higher than Sandpoint, Idaho. Although the snow in this area is fairly heavy, roads are kept open by the county except for the last quarter of a mile to the lower adit.

The property consists of one section on the northwest slope of Blacktail Mountain which is leased from the State of Idaho. The description of this area is sec. 36, R. 2 W., T. 56 N. Boise Meridian, Idaho.

Sandpoint, Idaho, has a population of approximately 5,000 people whose livelihood is derived principally from logging, lumbering, dairying, farming, and the tourist trade. Most mining supplies are available in Sandpoint and the remainder can be purchased in Spokane, Washington, which is approximately 60 miles to the southwest (fig. 1). Sandpoint is served by three railroads, the Spokane-International, the Great Northern, and the Northern Pacific.

Some miners are available at Sandpoint and the Coeur d'Alene District. Enough water for drilling purposes could be made available by collecting seepage water in the adits.

The general topography of the area is characterized by typical broad V-shaped glacial valleys and glacial lakes. The area is drained by swift-flowing creeks and subsurface seepage to Lake Pend Oreille and the Pend Oreille River.

The property is situated on Blacktail Mountain which is an elongated north-south-trending mountain 5 miles long and 3 miles wide. The mountain is rounded except on the south side which is very steep. The climate is moderate to cold. The annual average precipitation around Sandpoint is 30 inches. Precipitation on Blacktail Mountain, most of which falls as snow on the upper heights and as rain in the lower area, probably exceeds this.

GEOLOGY

The geology of the Pend Oreille Mining District has been described by Edward Sampson (Geology and Silver Ore Deposits of the Pend Oreille District, Idaho: Idaho Bureau of Mines and Geology, Pamphlet No. 31, 1928), and a geologic map of Bonner County, which includes the district, has been compiled for the Idaho Bureau of Mines and Geology by T. H. Kilisgaard, 1946.

The property lies at the northern end of Blacktail Mountain on the west side of Pend Oreille Lake (fig. 1). The mountain consists largely of the Blacktail formation which, as defined by Sampson, represents the undifferentiated equivalents of the Revett and St. Regis formations of the Coeur d'Alene District. The lower part of the Blacktail formation is prevailingly quartzite and the upper part is mostly argillite, although the two rock types alternate throughout a large part of the formation.

Adits No. 1 and 2 on the Iron Mask property are in fine-grained, pale-yellowish brown quartzite. Adit No. 3 crosscuts argillite and quartzite then turns southerly and continues in quartzite along the strike of the beds (pl. 1). The beds strike due north to N. 10° W. and observed dips range from 30° to 65° E.

The copper-bearing minerals on the Iron Mask property are found in thin fissure veins parallel to the bedding planes. In some places two or three veins parallel each other; in others they form en echelon pattern. The mineralized parts of the veins thicken and thin both laterally and on dip, ranging in width from a feather edge to 6 inches. The applicant reports a thickness of 12 inches in the winze. This could not be verified at the time of the examination as the winze was filled with water.

The vein filling consists mostly of manganese or hematite as botryoidal fillings in vugs, and limonite with minor amounts of malachite, pyrite, and chalcopyrite. Very little quartz is present in the veins. Silver minerals were not recognized but are present as shown by the assays. Hand samples reportedly taken from the winze show a mineral identified by the U. S. Bureau of Mines Station at Albany, Oregon, as tetrahedrite-tennantite.

Where the mineralized material is not present, the vein may persist for several tens of feet and consist of claylike, bleached material up to 2 or 3 inches thick. Very little shearing along the vein and only minor effects of shearing across the vein were noted.

The vein was most prominent in Adit No. 2, although it was also evident in Adit No. 1. The highest assay result was obtained at the face of Adit No. 1 (pl. 1). The vein was about 4 inches thick but could not be traced for any distance away from the face. The strike of the vein was followed on the surface south from Adit No. 1 to an outcrop about 680 feet south of the portal. A sample was taken from a thin seam of hematite and manganese from this outcrop. The assay showed 22.2 ounces silver per ton and 0.05 percent copper. A sample was also taken from similar material at an outcrop about half way between Adit No. 2 and Adit No. 3, but the assay results showed no copper and only 0.5 ounce silver per ton.

Seven samples were taken during the examination with the following assay results:

Sample No.	Length (feet)	Gold (oz./t.)	Silver (oz./t.)	Copper %
GGW-8D	1.5	Tr.	28.8	0.16
GGW-9D	0.3	0.01	22.2	0.05
GGW-10D	1.0	Tr.	12.0	0.12
GGW-11D	2.4	Tr.	2.9	0.03 N.G.
GGW-12D	1.5	0.01	0.8	Tr.
GGW-13D	1.5	Tr.	1.4	Tr.
GGW-14D	0.3	Tr.	0.5	Nil

The samples were all taken in the zone of oxidation and leaching and the assay results may reflect an impoverishment, particularly of copper. However, from the small amount of secondary copper minerals present it is doubtful if the copper content was ever very large. Furthermore, even if the copper content were high, the small size of the veins would preclude any possibility of an economic operation based on copper. In the near absence of zinc and lead and with only a minor amount of copper the Iron Mask mine is essentially a silver prospect.

HISTORY AND PRODUCTION

The discovery of mineral deposits in the Pend Oreille Mining District dates from the late 1880's when extremely rich silver ore was found in the vicinity of what is today the Talache mine. This find precipitated a rush that resulted in considerable prospecting exploration and the filing of many mining claims despite the inaccessibility of the region and the hardships encountered.

The Pend Oreille Mining District embraces the following one-time active mines: the Talache, Katherine, Brown Bear, Iron Dike and Iron Mask, all of which are west of Pend Oreille Lake. The gross production of the old Talache mine had a value in excess of two million dollars in silver. This rich silver vein lies half a mile east of and parallel to the Iron Mask vein.

The original Iron Mask mine claim was staked by Josiah Williams and Robert Rennie on April 2, 1886. They started the upper adit, referred to as the No. 1 level, which was mined at intervals for the next 40 years. This adit is approximately 200 feet long. Later the No. 2 level, approximately 56 feet below the No. 1 level, was driven 300 feet and the two levels were connected by a partly stoped raise.

In 1952 George Watts obtained a state mining lease on the property and extended the No. 2 level 120 feet to the south. This work revealed a promising looking ore shoot. In 1957 the Iron Mask Mining Co. was incorporated and the new company began sinking a winze on the ore shoot. At a depth of 50 feet their pumping equipment could not handle the water seepage. Therefore, it was decided to go down the hill and start a new adit, crosscut to the vein, drift 1,500 feet southerly along the vein, and raise on the ore shoot. After crosscutting 230 feet and drifting 50 feet on what was assumed to be the vein, the company began to run out of funds and decided to apply for a DMEA loan to complete the project.

A small but unknown amount of ore was produced by the early operators from the partly stoped raise. From the winze, now under water, the present operator made a 993-pound shipment to the Tacoma Smelter on July 1, 1957, for smelter testing. This shipment assayed 0.04 ounce gold, 178.78 ounces of silver, and 2.11 percent copper.

DESCRIPTION OF PROPERTY

The underground workings are in good condition. The hanging-wall rock has stood without the aid of timber for nearly 50 years. The only timber that has been required is around the portal to protect against surface sloughing.

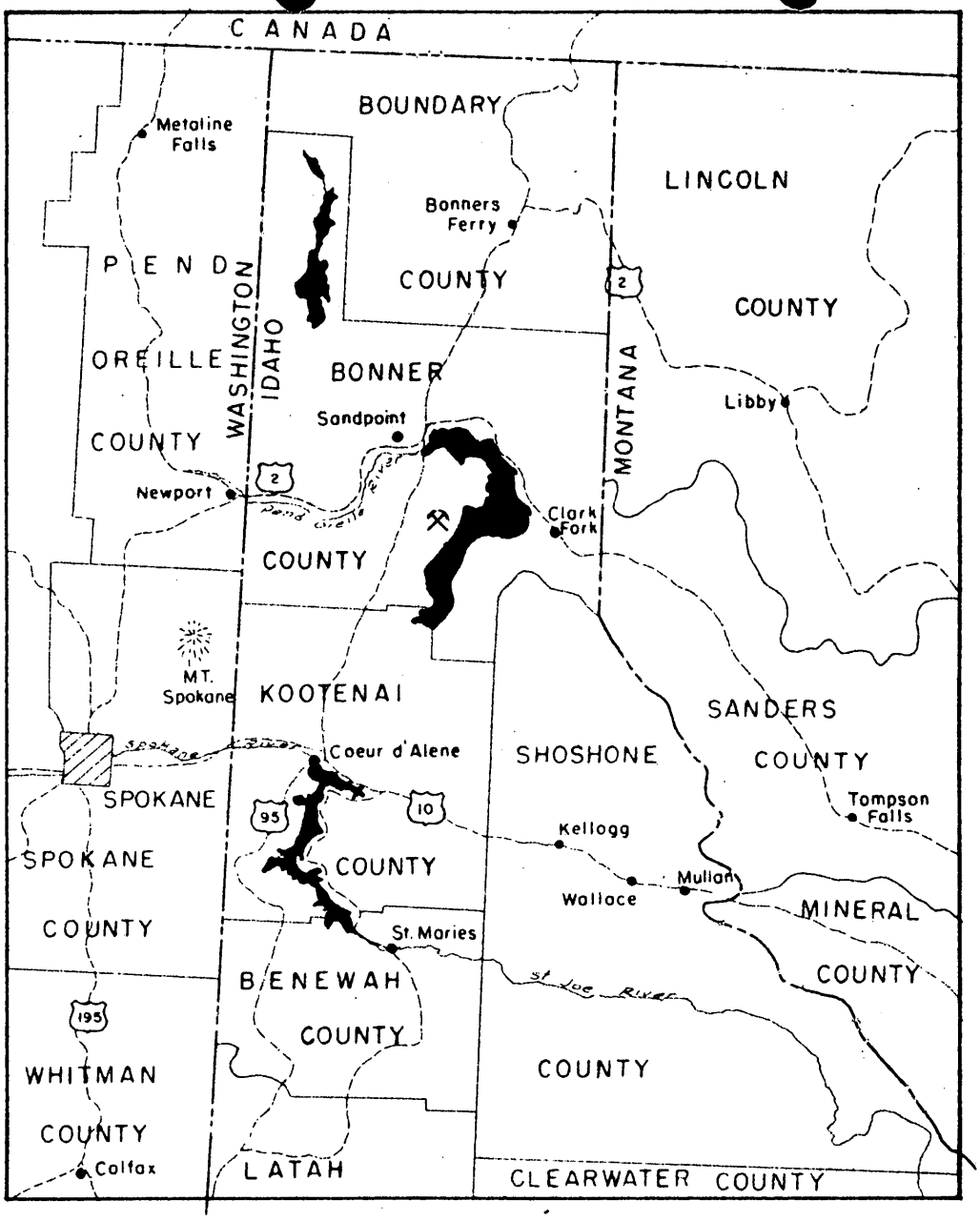
The company's mining equipment consists of the following: Chicago-Pneumatic two-stage air compressor rated capacity about 180 cubic feet per minute, two Swede jackleg drills complete with accessories, air pipe, drill steel and tungsten-carbide bits, Eimco 12B mucking machine, mine track, ore car, air ventilating fan and pipe, together with miscellaneous hand-mining tools, and one portable gasoline-electric plant, 300-watt capactity. A good supply of either sawed or rounded timbers is available locally.

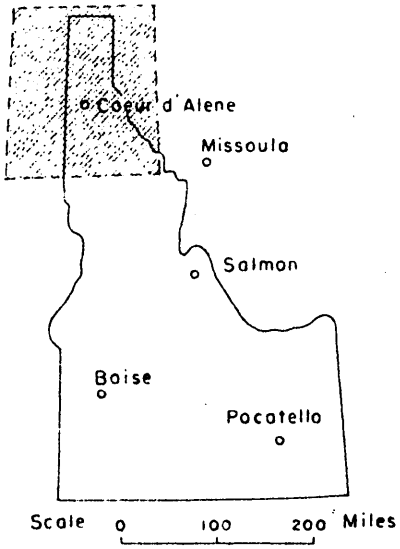
APPLICANT'S PROPOSAL AND DISCUSSION

The applicant has proposed to drift 1,500 feet at an estimated cost of $40 per foot. He has allowed $1,000 for roads and upkeep of roads and has made provision for 100 samples for copper and silver, 500 feet of timbering at $6 per foot, and 10 days for an engineering consultant. His total estimated cost is $62,000.

As there is very little likelihood that any appreciable amount of copper will be found on this property, the costs of the project were not discussed with the applicant and need not be considered in this report.

Enclosures
Distribution:
DMEA(3) USGS(SRO) Albee
USBM(5) Docket





INDEX MAP

IRON MASK MINE

IRON MASK MINING COMPANY, INC.

BONNER COUNTY, IDAHO

0 5 10 15 20 25 30 35 MILES

D. C. ALVORD

FIGURE 1

DMEA Form 7
(12-56)

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Date	Surname	Code
5/6	Klugescheid	500
	[illegible]	500
5/7	[illegible]	130
1.	Johnson	110
7	[illegible]	100
		220
		500

MAY 7 1958 500

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4989 (Copper)
Iron Mask Mining Company, Inc.
Iron Mask Mine
Bonner County, Idaho

Dear Mr. Weissenborn:

Reference is made to your letter of April 25, 1958, which states that a field examination of the subject property will be scheduledas soon as possible.

We will, therefore, hold this application in abeyance until the report and recommendations of the Field Team are received.

Enclosed are copies of memoranda, dated May 1, 1958, by T. H. Kiilsgaard, Geological Survey, and A. D. McMahon, Bureau of Mines, and one extra copy of the application for the use of the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

APPROVED:

Frank D. Lamb (HB)
Member, Bureau of Mines

Thor H. Kiilsgaard (HB)
Member, Geological Survey

WPKlugescheid/er 5/6/58
Copy to: Docket
Admr R File
Op. Committee
Mr. McMahon, USGS
Mr. Kiilsgaard, USGS
Chron.

Enclosures

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/6	Klugescheid	500
	[illegible]	500
5/7	Selfridge	130
5/7	Lamb	130
5/7	Kiilsgaard	130
"	[illegible]	110
"	Mittendorf	100
5/7	[illegible]	220
		500

MAY 7 1958

Mr. George M. Watt, President
Iron Mask Mining Company, Inc.
Sandpoint, Idaho

Re: Docket No. DMEA-4989 (Copper)
Iron Mask Mining Company, Inc.
Iron Mask Mine
Bonner County, Idaho

Dear Mr. Watt:

The application for assistance in exploring the subject property under the captioned docket number has been reviewed by the Division of Base Metals.

The DMEA Field Team, Region I, Mr. A. E. Weissenborn, Executive Officer, South 157 Howard Street, Spokane 4, Washington, will make a field examination of your property if it has not already done so.

Any assistance you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

WPKlugescheidier 5/6/58
Copy to: Docket
Admr R File
Op. Committee
Mr. McMahon, USBM
Mr. Kiilsgaard, USGS
Region I (2)
Chron.

8623

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

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May 1, 1958

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: T. H. Kiilsgaard, U. S. Geological Survey

Subject: Review of application, Iron Mask Mining Company DMEA Docket 4989 (Copper) Iron Mask Mine, Bonner County, Idaho

The applicant proposes to drive 1450 feet of drift to explore a segment of vein 405 feet below an upper part of the vein that carried high-grade values in silver.

The Iron Mask is an old mine that has been known since the 1880's. It has never been productive although it has been intermittently explored at several different points.

I note the Field Team is scheduling an examination. I therefore recommend that we await their report before arriving at a decision on the application. I would expect the Field Team will recommend denial, for on the basis of what has been presented, a DMEA exploration program does not appear to be warranted.

T. H. Kiilsgaard

T. H. Kiilsgaard

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

May 1, 1958

DMEA
RECEIVED MAY 1 1958
DATE | | CODE
5/1 | C | 220

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: Commodity Specialist, Branch of Base Metals

Subject: Review of application, Docket No. DMEA 4989 (copper) Iron Mash Mining Co., Inc., Iron Mash Mine, Bonner County, Idaho. $62,000

The Applicant seeks Government assistance for an exploration project consisting of 1,500 feet of drifting along a vein intersected near the end of a 230 foot crosscut driven in 1952. The Applicant states that after 50 feet of drifting the vein pinched; however, the outcrop widens 300feet further south. The applicant believes that there is the possibility of finding an ore body because where drifting has been done there is continuous vein structure.

It is recommended that the application be referred to the field team for appropriate action.

A. D. McMahon
A. D. McMahon

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard, U.S.G.S.
F. D. Lamb
F i l e s

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

April 28, 1958

Iron Mask Mining Company, Inc.,
Sandpoint, Idaho

Subject: DMEA-4989

Gentlemen:

Your application for exploration assistance, dated April 24, 1958 submitted to our office at Spokane, Washington has been assigned Docket Number DMEA-4989 and referred to the Base Metals Division in the Washington office.

Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region I

UNITED STATES
DEPARTMENT OF THE INTERIOR

23-2658

ADIT NO. 3

Mineralized zone, very little quartz. Figure 8 filling being done.
Seam, one foot thick, dip 45°
Seam, one foot thick, dip 45°

21-2653

21-2655

20-2653

19-2754

18-2755

17-2857

GGW-14D chip 7+ 0.5 Tr

16-2934

16-2932

15-2977

BULL QUARTZ VEIN

14-2982

PROPOSED DRIFT

13-3013

12-3013

11-3100

10-3100

ADIT NO. 2

9-3154

ADIT NO. 1
PLAN

8-3191

GGW-13D 1.5' 7+ 14 Tr

7-3228

GGW-12D 1.5 0.01 0.6 Tr

Mineralized zone, very little quartz. Figure 8 filling being done.
Seam, one foot thick dip 45°
Seam, one foot thick dip 45°
Rock 2' left dip like notes at left.
Discontinuous mineral fillings consisting mostly of a manganese mineral or hematite with minor malachite, pyrite and chalcopyrite.
No silver minerals recognized.

GGW-9D 1.5 7+ 28.8 0.14

6-3254

GGW-10D 10' 7+ 12.0 0.02
GGW-11D 24' 7+ 29 0.03

PROPOSED RAISE

5-3279

Quartzite country rock overlying area. Fine-grained thin to thick bedded rock yellowish brown on fresh surface.

4-3300

3-3332

2-3364

1-3423

GGW-8D 4' 0.01 32.2 0.08

EXPLANATION

Contact showing dip, dashed where inferred

Strike and dip of beds

Traverse station and elevation

SAMPLE DATA

Sample No	Length feet	Au (oz)	Ag (oz)	Cu %
GGW11D	2.4	Tr	2.9	0.03

GEOLOGIC MAP OF THE IRON MASK PROPERTY
SHOWING ASSAY RESULTS AND PROPOSED WORK

IRON MASK MINING COMPANY, INC.

BONNER COUNTY, IDAHO

0 10 20 30 40 FEET

PLATE I

GEOLOGY AND TOPOGRAPHY BY H.F. ALBEE AND G. LIVINGOOD
DRAWN BY H.F. ALBEE