6-303
(March 1947)

W.H.K

cc: Wm. H. King

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Salt Lake City, Utah

Mining Division
Date Rec'd.
JUN 23 1952
BUREAU OF MINES
Denver, Colorado

No. 9

Report to Mr. S. R. Wilson

Chemical Laboratory Report

Date received June 12, 1952

Date reported June 19, 1952

Serial No.	DESCRIPTION	Lot No.	Au	Ag	WO_3	Mo
	Copper King Mine Battle Mountain, Nevada					
3800	Copper King Mine	CK-1	0.20	6.1	6.75	<0.01

Spec 6 x 7 (Inactive)

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

Signed H. E. Peterson

224 New Customhouse
Denver 2, Colorado

June 11, 1952

Mr. Harry E. Ferguson
Box 621
Cheyenne, Wyoming

647.

Dear Mr. Ferguson:

On April 9 we sent you the required application forms for DMEA assistance in the exploration work on the Copper King Mine.

Since we have not received a reply or your application we are wondering if we can assist you in completing these forms. In case you wish assistance call at this office and we will be happy to help you.

Very truly yours,

W. H. King

W. H. King
Executive Officer
Field Team, Region IV

cc: Robert E. Rose
Asst. Secy. Interior

Home 978

HMC:fwo

cc: Subj, Chron

224 New Customhouse
Denver 2, Colorado

April 9, 1952

Mr. Harry E. Ferguson
Box 621
Cheyenne, Wyoming

Dear Mr. Ferguson:

Enclosed are forms MF-100, MF-103, DMEA-1 and Questions and Answers. It is suggested that you complete the forms MF-100 and MF-103 in quadruplicate and forward them to this office. We may be able to assist you in obtaining a contract for DMEA exploration assistance in connection with the work you wish to do on the Copper King Mine.

Please submit your plan of operation and maps illustrating the work you contemplate. May we also have a copy of the lease which you have with the State of Wyoming on the Copper King Mine. A photostatic copy would be acceptable.

In case you have difficulty completing these forms, you might wish to call at this office and we will assist you.

Very truly yours,

W. H. King

W. H. King, for
J. H. East, Jr.
Executive Officer
Field Team, Region IV

Enclosures

cc: C. O. Mittendorf (2)
S. R. Wilson
Sub
Chron

WHK:bh

OV
OPR WA 310 PLS OK M
WA 310 PLS M OK
WASH DC BU MINES E310 GA PLS
D DN 235 BUREAU MINES 4-4-52 8-47 AM

C O MITTENDORF

FERUXXXX FERGUSON AND DINNEEN, DOCKET 647, ADVUXXX ADVISE THAT STATE OF WYOMING CANNOT SIGN SUBORDINATION OR CONSENT TO LIEN. WYOMING ATTORNEY GENERAL REPRESENTATIVE PLANS TO SEE YOU AND SECRETARY ROSE NEXT WEEK WITH COUNTER PROPOSAL.

J H EAST, JR.

38$
END MGG ACK PLS BMH
WHAT IS THE WORE XXX WORD AFTER SIGN IN THE SECOND LINE PLS
SUBORDINATION OK MSG RECD O CWO

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

Mining Division
Date Rec'd.
APR 2 - 1952
BUREAU OF MINES
Denver, Colorado

April 2, 1952

Mr. Patrick W. Dineen
210 W. 23rd Street
Cheyenne, Wyoming

Dear Mr. Dineen:

We have received a letter dated February 19, 1952, from the State of Wyoming Commissioner of Public Lands and Farm Loans, concerning the Copper King mine, Laramie County, Wyoming. The position of the State pertaining to subordination of rights under a possible exploratory loan from the Federal Government is outlined in the letter.

A copy of the above letter was forwarded to Mr. J. L. Hofflund, Chief Counsel, Defense Minerals Exploration Administration, Washington, D. C., for his advice. It was suggested that the State of Wyoming may not have difficulty in executing the new form, "Owner's Consent to Lien," six copies of which are attached. Also included are forms DMEA-1, describing the loan program, and MF-200, Exploration Project Contract, which should assist the Wyoming State officials to appraise the situation.

Sincerely,

Stephen R. Wilson, Chief
Utah-Wyoming Branch
Mining Division

Enclosures

cc: W. H. King
file
df

140

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

REGIONAL DIRECTOR'S OFFICE
REGION IV
MAR 14 1952
BUREAU OF MINES
DENVER, COLORADO

March 11, 1952

Memorandum

To: J. H. East, Jr., Executive Officer, DMEA Field Team, Region IV

From: Chief Counsel

Subject: Copper King Mine, Laramie County, Wyoming — Subordination Agreement

Your memorandum of March 4 to Mr. Mittendorf has been sent to me for reply.

I understand from your memorandum and from the attached copy of a letter dated February 19 from the State of Wyoming Commissioner of Public Lands and Farm Loans to you, that the State feels that it cannot execute the Landlord's Subordination Agreement.

I gather from the correspondence that the State officials have seen only the old form of subordination agreement, and that the new form of Owner's Consent to Lien, set forth in DMEA Circular 7 has not been presented to the State for its use. I believe that you would find that the State would have no difficulty in executing the new form, and therefore suggest that before we explore the matter any further, you ascertain if this is not the case.

DMEA 1 (formerly MO-5) was published today, the new contract forms have been approved, and we will shortly be able to distribute, for your more convenient use, printed forms of the Owner's Consent to Lien.

J. L. Hofflund
Chief Counsel

J. L. H.

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

March 11, 1952

Memorandum

To: J. H. East, Jr., Executive Officer, DMEA Field Team, Region IV

From: Chief Counsel

Subject: Copper King Mine, Laramie County, Wyoming — Subordination Agreement

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J. L. Hofflund

J. L. Hofflund
Chief Counsel

Inactive File

647

224 New Customhouse
Denver 2, Colorado

March 20, 1952

Memorandum

To: S. R. Wilson

From: Acting Chief, Mining Division, Region IV

Subject: Copper King Mine, Laramie County, Wyoming - Subordination Agreement

Mr. J. L. Hofflund, Chief Counsel, has replied to our inquiry concerning the subordination agreements and a copy of his memo is attached.

Mr. Hofflund suggests that the Wyoming State Officials might be in position to execute an Owner's Consent to Lien. We have prepared 6 copies of this agreement and suggest that you send them to the owners for submission to the State of Wyoming.

W. H. King

W. H. King

Enclosures

cc: Sub
Chron

WHK:bh

22h New Customhouse
Denver 2, Colo.

647

March 4, 1952

Memorandum

To: C. O. Mittendorf

From: J. H. East, Jr., Executive Officer, Field Team, Region IV

Subject: Copper King mine, Laramie County, Wyoming

The lessees of the Copper King mine, Laramie County, Wyoming are attempting to make application for DMEA exploration assistance, but they find that the owner, The State of Wyoming, cannot give them a subordination agreement.

Our engineers have examined the property and recommended a Bureau drilling program before DMEA was organized. We believe the property has possibilities and we would like very much to see the exploration program activated. Please give us any information or suggestions that will help in this matter.

A copy of a letter from Mr. John Riedel, Commissioner, State of Wyoming, Office of Commissioner of Public Lands and Farm Loans, to Mr. S. R. Wilson, Chief, Utah-Wyoming Branch - Mining Division, Salt Lake City, Utah, concerning the problem is attached.

J. H. East, Jr.

Enclosure

J.F.S.
W.H.K.

cc: Sub
Chron
S. R. Wilson

WHK:bh

FD

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

Division
Rec'd.
1952
BUREAU OF MINES
Denver, Colorado

February 27, 1952

Memorandum

To: W. H. King, Acting Chief, Mining Division, Region IV

From: Chief, Utah-Wyoming Branch, Mining Division

Subject: Copper King mine, Laramie County, Wyo. Owner - State of Wyoming.

Lessees of the subject property have applied, or intend to apply, for a DMEA loan, but are having difficulty in obtaining a Subordination Agreement from the State of Wyoming, as shown by the attached letter copy.

The property has been examined by W. E. Young, and a report prepared. A copy of the report is in your office. It is believed the copper-gold mineralization on the property is sufficiently strong to warrant further investigation. Patrick W. Dinneen, one of the lessees, talked with Allsman concerning the property, but I have no definite information indicating that a loan application is in process.

It appears that the Wyoming officials do not understand the intent of the Subordination Agreement; thus it may be advisable to discuss the problem from your office.

Stephen R. Wilson

Stephen R. Wilson

Enclosure

John Riedel, Commissioner COPY Jane F. Rogers, Deputy Commissioner

STATE OF WYOMING

Office of

Commissioner of Public Lands and Farm Loans

Cheyenne

February 19, 1952

United States Department of the Interior
Bureau of Mines
1600 East First South Street
Salt Lake City 1, Utah

ATTENTION: Stephen R. Wilson, Chief
Utah-Wyoming Branch - Mining Division

Re: Lease No. O-5169
Lode Mining Lease - Gold, Silver & Copper
All Section 36-12-70
Harry E. Ferguson and Patrick W. Dinneen,Sr.
LAND LORD'S SUBORDINATION AGREEMENT

Dear Mr. Wilson:

At the request of Harry E. Ferguson and Patrick W. Dinneen, Sr., the matter of the Landlord's Subordination Agreement was taken up with the Attorney General, Mr. Harry S. Harnsberger. In the opinion of Mr. Harnsberger, the Board could not assume liabilities as suggested in the Subordination Agreement, because the Board does not have authority to assume liabilities. It would require an act of legislature through an enabling act to provide the proper authority.

The Attorney General further stated, that the Land Board could not sign an agreement that would inhibit the State from collecting rentals or royalties, nor has the Board the authority to waive rental or royalty rights to the Government or its agents.

Mr. Dinneen and Mr. Ferguson requested this office to advise you regarding the above and having in view some other way of complying with your requirements.

I believe, you will find in the lode mining lease, signed by Dinneen and Ferguson, that they may make assignments of the lease, which would transfer all obligations and which are binding upon the assignee, with the approval of the Board of Land Commissioners.

Under that section of the lease, I can see where your requirements, as set out in your Subordination Agreement, could be covered and give you the protection you seek by the Subordination Agreement. Since we can not

COPY

complete form MF-202, I suggest a further exploration of the lode mining lease now in effect for a solution of this problem. For the good of the State of Wyoming, we are very much interested in the mining operations contemplated by Dinneen and Ferguson and, therefore, will entertain any suggestion from you or the principals that will offer a solution.

It is possible to add a section to the lease or modify any section in the lease, which will fulfill your demands, always subject to the approval of the Board of Land Commissioners.

Very truly yours,

/S/ John Riedel
Commissioner

JR/vh

cc: Harry E. Ferguson
Box 621, Cheyenne, Wyoming

DMA

DEFENSE MATERIALS PROCUREMENT AGENCY
WASHINGTON 25, D. C.

Docket Control Center December 19, 1951

Chief, Copper Branch
Director, Program Development

Application for a Production Loan of Mr. Henry Ferguson, Box 621, Cheyenne, Wyoming, DMA-647, Commodity-Copper

This application is to be withdrawn as a production loan and transferred to Defense Minerals Exploration Administration in care of Mr. E. W. Ellis, Room 4070 New Interior Building, since the applicant will apply for aid for an exploration project at a future date.

Transmitted herewith is the complete file consisting of:

1 Application for loan
1 Diamond Drill Hole No. 1
1 Report on the Arizona Mine 1912
1 DMA Referral of application for Government aid
5 Letters to H. Ferguson from
  Tom Lyon, Feb. 19, 1951
  J. B. Gowen, April 10, 1951
  J. B. Gowen, April 19, 1951
  Tom Lyon, Aug. 30, 1951 (2 copies)
  J. B. Gowen, Sept. 21, 1951
2 Letters from H. Ferguson to
  Tom Lyon, Sept. 10, 1951
  J. B. Gowen, Oct. 31, 1951
2 Letters to Hon. Joseph C. O'Mahoney from
  R. J. Hofman, Feb. 8, 1951
  James Boyd, Feb. 27, 1951
1 Report on Arizona Group
2 Maps on Copper King Mine

J. B. Gowen

J. B. Gowen, Chief
Copper Branch

JME

Attachments

Approved:

Tom Lyon, Director
Program Development Division

RVWaugh:es
12/19/51
cc: Young
Feiss
Gouglas
Lyon
Gowen
Feidl Team IV
DMPA-Files

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

DMA

REGIONAL DIRECTOR'S
OFFICE
REGION IV
SEP 26 1951
BUREAU OF MINES
DENVER, COLORADO

Mr. Harry Ferguson
Box 621
Cheyenne, Wyoming

Re: Docket No. DMA-647

Dear Mr. Ferguson:

This is to acknowledge your letter of September 10, 1951 requesting some additional information.

Regulations require that before the Government will guarantee a private loan one must have a proven ore body of sufficient tonnage and grade to amortize the loan in a given period of time. Since your property is still in the exploratory stage as evidenced by your application requesting in part funds for diamond drilling to explore known mineralized structures, it is doubtful whether you could qualify for this type of assistance. Therefore, if you wish to apply for exploration aid we would be glad to consider your application. With this application should be included evidence showing your rights to the land.

Very truly yours,

J. B. Gowen

J. B. Gowen, Chief
Copper Branch

J.F.S.

JBGowen (9/21/51)
Copy to: Administrator's Reading File
Executive Officer, Region IV
Copper Branch
Files - DMA Docket

Place in pending in Wtr.

Return to file

MTE
Wom

Cheyenne, Wyoming
September, 10, 1951

Mr. Tom Lyon, Director
Supply Division
Department of the Interior
Defense Minerals Administration
Washington 25, D. C.

DMA-647

Dear Mr. Lyon:

Thank you for your letter of August, 30, 1951 regarding my application for a loan.

The property involved is owned by the State of Wyoming (school section) therefore I am unable to secure a subordination agreement, in order to preserve a Government lien on the property.

Under instructions on Form MF-100 Government guarantee of a private loan, is listed as one form assistance. Would this form of assistance apply to this property?

This property was examined and approved by the Bureau of Mines (Region IV) in October 1950.

It is my belief that the property would have been core drilled this year, if the Bureau of Mines core drilling program had been continued.

Very truly yours,

/s/ Harry Ferguson

Harry Ferguson
Box 621
Cheyenne, Wyoming

Wyo
741

C O P Y

310

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

AUG 30 1951

Mr. Harry Ferguson
Box 621
Cheyenne, Wyoming

Re: Docket No. DMA-647

Dear Mr. Ferguson:

In reviewing your application for a loan we find that you have not submitted sufficient information to enable us to determine the merits of your request. In order to expedite the handling of this matter and to enable us to evaluate your request, it is requested that you fill in completely the attached loan application form and return it to this office within 60 days from the date of this letter.

In the event we do not hear from you regarding this matter within 60 days we will assume that you are not now interested in such a loan. Should we not receive the additional information requested herein we will record your application for a loan as withdrawn.

This action will not, however, preclude you from submitting at a later date a completed application for a loan or an application for any other type of assistance that may be available under the provisions of the Defense Production Act.

Sincerely yours,

Tom Lyon

Tom Lyon, Director
Supply Division

Fwd

file now

Attch.

8/29/51
Copy to: Adm. Reading File
Reports and Records Branch
Executive Officer, DMA Field Team IV
Copper Branch
Files - Docket No.

310

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

AUG 30 1951

Mr. Harry Ferguson
Box 621
Cheyenne, Wyoming

Re: Docket No. [illegible]

Dear Mr. Ferguson:

In reviewing your application for a loan we find that you have not submitted sufficient information to enable us to determine the merits of your request. In order to expedite the handling of this matter and to enable us to evaluate your request, it is requested that you fill in completely the attached loan application form and return it to this office within 60 days from the date of this letter.

In the event we do not hear from you regarding this matter within 60 days we will assume that you are not now interested in such a loan. Should we not receive the additional information requested herein we will record your application for a loan as withdrawn.

This action will not, however, preclude you from submitting at a later date a completed application for a loan or an application for any other type of assistance that may be available under the provisions of the Defense Production Act.

Sincerely yours,

Tom Lyon

Tom Lyon, Director
Supply Division

Attch.

8/29/51
Copy to: Adm. Reading File
Reports and Records Branch
Executive Officer, DMA Field Team IV
Copper Branch
Files - Docket No.

April 10, 1951

Re: Docket No. DMA-647

Mr. Harry Ferguson
Box 621
Cheyenne, Wyoming

REGIONAL DIRECTOR'S OFFICE
REGION IV
APR 1 1951

Dear Mr. Ferguson:

A study of your loan application for the Copper King Mine, Laramie County, Wyoming, indicates that this should be considered as an exploration project for which direct loans are not being made. The enclosed press release of February 20, 1951 describes in general terms a program for assistance in exploration work which we hope will soon be put into effect. The assistance will be on the basis of matching funds. If after studying the attached notice you wish to apply for assistance on such basis, we will gladly send you the regulations and application forms when they become available.

You mention recent examinations by the American Smelting and Refining Company, Kennecott Copper Corporation, and New Jersey Zinc Company. It might be helpful to see their reports. Would you authorize us to approach these companies for this purpose?

Very truly yours,

J. B. Cowen, Acting Chief
Copper Branch, DMA

Enclosure

JJCollins:pf

Copy to: Executive Officer, DMA Field Team, Region IV,
224 New Customhouse, Denver 2, Colorado
Executive Secretary
Copper Branch
Files

REGIONAL DIRECTOR'S
OFFICE
REGION IV
MAR 2 - 1951
BUREAU OF MINES
DENVER, COLORADO

February 27, 1951

Re: Docket No. DMA-647

Hon. Joseph C. O'Mahoney
United States Senate
Washington 25, D. C.

My dear Senator O'Mahoney:

This is in reply to a recent inquiry from your office concerning an application by Mr. Harry Ferguson, Box 621, Cheyenne, Wyoming, for a loan under the Defense Production Act. The matter was brought to your attention by letter dated February 8, 1951, addressed to you by R. J. Hofmann, President, The American National Bank, Cheyenne, Wyoming. Mr. Hofmann sent you a copy of the application submitted by Mr. Ferguson.

Mr. Ferguson's application was received by the Defense Minerals Administration, February 12, 1951, was assigned Docket Number DMA-647 and was acknowledged in a letter to Mr. Ferguson dated February 19. It has been referred to the Copper Branch for consideration. Review of the application shows that it is for the initial purpose of exploring mineralized areas that have as yet been only partly explored. The project is not yet in the stage when a loan for production purposes should be considered, but rather is an exploration project. We will, therefore, send Mr. Ferguson full details of the Defense Minerals Administration exploration program so that he may decide whether or not he wishes to apply for assistance thereunder.

Your interest in this matter is appreciated. Mr. Hofmann's letter is returned herewith.

Sincerely yours,

JAMES BOYD

Administrator
Defense Minerals Administration

FILE

Enclosure

CHJohnson:pf

Copy to: Mr. Thos. H. Miller
Executive Officer, DMA Field Team, Region IV,
[illegible] New Customhouse, Denver, Colorado
[illegible]tary, DMA

THE AMERICAN NATIONAL BANK
OF CHEYENNE

R. J. Hofmann
President

CHEYENNE, WYOMING

February 8, 1951

COPY

The Honorable Joseph C. O'Mahoney,
Senator from Wyoming,
Senate Office Building,
Washington 25, D. C.

Dear Joe:

Harry Ferguson has asked me to forward to you the enclosures which I believe are self explanatory.

Harry has lived in the Silver Crown area all his life and feels that there is sufficient copper in that territory to justify expenditure by the Bureau of Miles to diamond drill and determine definitely whether or not it would be feasible to mine and mill the ore.

As I understand it, they have made applicat on to the Bureau of Mines and would like to have any help that you may be able to give them in bringing this matter to a head. I do not know a great deal about the practicability of this matter but there is a possibility that something could develop that would be of benefit to the war effort.

Kindest personal regards from Bess and myself to you and Mr. O'Mahoney.

Yours very truly,

/s/ Rudy

President

RJH:cjz
Encl'

REGIONAL DIRECTOR'S
OFFICE
REGION IV
23 1951
BUREAU OF MINES
DENVER, COLORADO

February 19, 1951

Mr. Harry Ferguson
Box 621
Cheyenne, Wyoming

DMA - 647
The Copper King Mine
Laramie County, Wyo.

Dear Mr. Ferguson:

Your application for a loan has been received and assigned the above docket number (DMA - 647). All future correspondence should bear this number.

We will consider your application at the first opportunity and let you know what decision has been reached.

Very truly yours,

Tom Lyon

Tom Lyon, Chief
Copper Branch

TLyon/apd

CC - Executive Secretary
Executive Officer, Field Team, Region IV
Copper Commodity Committee
Files

Form 6–98

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

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

REPORT ON THE ARIZONA MINE, LARAMIE COUNTY, WYOMING, BY C. E. JAMISON, STATE GEOLOGIST, 1912

OTEGO MINING COMPANY,
HECLA, WYOMING.

GENTLEMEN:

IN ACCORDANCE WITH YOUR INSTRUCTIONS OF RECENT DATE, I HAVE MADE AN EXAMINATION OF THE ARIZONA MINE AND HEREWITH SUBMIT MY REPORT.

VERY RESPECTFULLY,
C. E. JAMISON,
STATE GEOLOGIST,

THE ARIZONIA MINE

THE ARIZONA MINE, OWNED BY THE OTEGO MINING COMPANY, IS LOCATED IN SECTIONS 25 AND 36, TOWNSHIP 14, RANGE 70 WEST, IN THE SILVER CROWN MINING DISTRICT, LARAMIE COUNTY, WYOMING. IT IS ABOUT EIGHT MILES BY WAGON ROAD FROM SILVER CROWN STATION, ON THE COLORADO & SOUTHERN RAILWAY, (SEE MAP). CHEYENNE, EIGHTEEN MILES EAST FROM THE MINE, IS THE NEAREST TOWN AND SUPPLY POINT, BOTH SILVER CROWN AND GRANITE CANYON BEING MERE RAILWAY SIDINGS.

THE MINE IS BEST REACHED FROM CHEYENNE BY TEAM OR AUTOMOBILE, THE ROADS BEING FIRST CLASS, ALTHOUGH THE TRAIN ON THE COLORADO & SOUTHERN RAILWAY MAY BE TAKEN TO SILVER CROWN STATION, AND THE TRIP COMPLETED IN PRIVATE CONVEYANCE, WHICH SHOULD BE ARRANGED FOR IN ADVANCE.

CLIMATE

THE LOCATION OF THE SILVER CROWN MINING DISTRICT IN THE LARAMIE MOUNTAIN REGION, AT ELEVATIONS RANGING FROM 6,500 TO 8,000 FEET, GIVES IT A SEMI-ARID CLIMATE. SNOW LAYS ON THE GROUND BUT A SHORT TIME, AND, ALTHOUGH THE TEMPERATURE AT TIMES DROPS AS LOW AS -25 DEGREES F., WORK MAY BE CARRIED ON AT ALL SEASONS OF THE YEAR.

GENERAL DESCRIPTION

THE PROPERTY OF THE OTEGO MINING COMPANY COMPRISES THE ARIZONA, NEVADA, ANACONDA AND GOLD COIN LODE MINING CLAIMS, EACH OF ABOUT TWENTY ACRES IN EXTENT. SURFACE IMPROVMENTS ARE NEGLIGIBLE, BEING LIMITED TO A SHAFT HOUSE AND A WHIM, WHILE UNDERGROUND DEVELOPMENT CONSISTS OF A SHAFT 157 FEET IN DEPTH, CROSSCUTS AT THE 130-FOOT LEVEL, AND A TUNNEL 100 FEET IN LENGTH, THE TOTAL UNDERGROUND DEVELOPMENT AMOUNTING TO 619 FEET.

GEOLOGY

THE GEOLOGICAL HORIZON OF THE SILVER CROWN DISTRICT INCLUDES GRANITES AND SCHISTS, CUT, AT THE ARIZONA MINE, BY A DYKE OF DIORITE, WHICH HAS BEEN EXTENSIVELY FRACTURED AND SHEARED IN THE DIRECTION OF ITS STRIKE. THE FRACTURING OF THIS DYKE HAS OPENED THE WAY FOR MINERAL BEARING SOLUTIONS, WHICH HAVE DEPOSITED, IN THE SHEAR ZONE, THE MINERALS BORNE IN SOLUTION, FORMING MINUTE VEINLETS OF QUARTZ IMPREGNATED WITH GOLD AND COPPER. THIS MINERALIZED DYKE OUTCROPS EXTENSIVELY ON THE ARIZONA CLAIM, ITS WIDTH BEING ABOUT TWO HUNDRED FEET. THE MINERALIZED ZONE HAS NOT BEEN EXPOSED IN ITS FULL WIDTH IN THE UNDERGROUND WORKINGS, ALTHOUGH CROSSCUTS, 102 FEET IN LENGTH ON THE 80-FOOT LEVEL AND 82 FEET IN LENGTH ON THE 130-FOOT LEVEL, HAVE BEEN DRIVEN WITHOUT ENCOUNTERING EITHER WALL.

ON THE SURFACE THE ORE IS OXIDIZED, THE PRINCIPAL MINERAL BEING MALACHITE, BUT AT THE 130-FOOT LEVEL, COPPER SULPHIDES AND NATIVE COPPER ARE BEGINNING TO BE IN EVIDENCE. AS GREATER DEPTH IS ATTAINED, PROBABLY WITHIN THE NEXT HUNDRED FEET, THE COPPER MINERALS IN THE ORE WILL CONSIST ALMOST ENTIRELY OF COPPER SULPHIDES WITH MORE OR LESS NATIVE COPPER.

Ore Development

Although the mine is developed by 619 feet of drifts, crosscuts, etc., the work is so slight in comparison with the size of the ore-body that no reliable estimate can be made as to the tonnage of probable ore. There is no doubt, however, that there are, above the 130-foot level, several hundred thousand tons of ore.

In the course of the examination fourteen samples were taken from the ore body. Assays were made by J. W. Richards, of Denver, By Ricketts and Banks of New York, by Ledoux & Company of New York, and by the writer. The value of these samples, as determined by averaging the results obtained by the above mentioned assayers are given below.

No.	Description	Gold Oz.	Silver Oz	Copper %
1	130-ft. level, north crosscut, 55 feet	.21	.50	0.66
2	130-ft. level, north crosscut, streak containing native copper, 2 feet 1 inch	.12	.80	0.99
3	130-ft. level, east drift, face, 8 feet	.06	.40	0.22
4	130-ft. level, west drift, face, 8 feet 2 inches	.27	.55	0.55
5	130-ft. level northwest crosscut, south side, 28 feet 8 inches	.12	.50	1.11
6	130-ft. level, south crosscut, 31 feet 4 inches	.06	.40	0.88
7	130-ft level, northwest crosscut, 31 feet 4 inches	.06	.50	0.44
8	80-ft. level, north crosscut, 28 feet 2 inches	.18	.80	0.44
9	80-ft. level, south crosscut, 74 feet 3 inches	.06	.50	0.55
10	Shaft 20 feet below surface, 4 feet	.42	.70	2.43
11	Shaft 40 feet below surface, 5 feet	.18	.42	1.66
12	Shaft 75 feet below surface, 5 feet	.18	.42	0.77
13	Shaft, 100 feet below surface, 5 feet	.21	.50	1.22
14	Opencut, 12 feet below surface, 20 feet	.20	.50	0.99

METHOD OF TREATMENT

ALTHOUGH THE ORE EXPOSED ABOVE THE 130-FOOT LEVEL IN THE ARIZONA MINE WILL YIELD ITS GOLD AND SILVER TO SIMPLE TREATMENT WITH POTASSIUM CYANIDE, THE PRESENCE OF RELATIVELY LARGE AMOUNT OF THE CARBONATES AND OXIDES OF COPPER WOULD CAUSE A LARGE CONSUMPTION OF CYANIDE AND THEREBY INCREASE THE COST OF TREATMENT. IT IS BELIEVED BY THE WRITER THAT THE ORE IS AMENABLE TO LEACHING WITH SULPHURIC ACID, FOR THE REMOVAL OF THE COPPER, FOLLOWED BY CYANIDATION. IT IS SOMEWHAT DIFFICULT TO ESTIMATE THE COSTS OF SUCH TREATMENT, BUT IT IS BELIEVED THAT THEY WILL NOT EXCEED THE FOLLOWING:

	COST PER TON
MINING	$1.00
CRUSHING	.20
SULPHURIC ACID, 23 LBS, (INCLUDING 25% LOSS)	.25
LEACHING WITH ACID	.40
PRECIPITATING COPPER	.05
MARKETING COPPER	.05
TOTAL COST OF MINING AND REMOVING COPPER	$1.95

	COST PER TON
LEACHING WITH CYANIDE (INCLUDING COST OF CYANIDE)	$0.60
PRECIPITATING GOLD AND SILVER	.05
REFINING	.05
MARKETING	.05
TOTAL COST OF CYANIDATION	$0.75
TOTAL COST OF MINING, ACID WASH AND CYANIDATION	$2.70

ASSUMING THAT AN EXTRACTION OF ONLY 65 PER CENT, OF THE COPPER WILL BE MADE, THE FIGURES ABOVE FOR COST OF MINING AND EXTRACTION OF COPPER ARE EQUIVALENT TO A COST OF 16½ CENTS PER POUND OF COPPER PRODUCED. AFTER LEACHING WITH SULPHURIC ACID THE ORE SHOULD BE IN IDEAL CONDITION FOR CYANIDATION AND SHOULD READILY YIELD 90 PER CENT OF THE GOLD AND SILVER, AND 65 PER CENT OF THE COPPER, THIS ORE SHOULD YIELD A PROFIT OF $2.08 PER TON, THE COST BEING BASED ON THE FIGURES GIVEN ABOVE.

IT IS PROBABLE THAT AS DEVELOPMENT IS CONTINUED TO GREATER DEPTHS THE METALIC MINERALS IN THE ORE WILL BE FOUND TO CONSIST ENTIRELY OF COPPER AND IRON SULPHIDES, WHEN THE METHOD OF TREATMENT WILL BE SOMEWHAT DIFFERENT FROM THAT NECESSARYFOR THE OXIDIZED ORES.

CONCLUSIONS

BEFORE ERECTING A PLANT FOR THE TREATMENT OF THE ORE THIS MINE SHOULD BE FURTHER DEVELOPED AND THE CHARACTER OF ORE BELOW PERMANENT WATER LEVEL DETERMINED. EXTRACTIONS TESTS SHOULD BE MADE TO DETERMINE THE PROPER METHOD OF TREATMENT, AND THE MINE WORKED ONLY ON A LARGE SCALE. THE ORE OF THE ARIZONA MINE ALTHOUGH LOW IN GRADE, SHOULD YIELD A HANDSOME PROFIT WHEN PROPERLY WORKED.

THE ORE EXPOSED ABOVE THE 130-FOOT LEVEL INDICATES A LARGE PROSPECTIVE VALUE AND FULLY WARRANTS FURTHER DEVELOPMENT.

RESPECTFULLY SUBMITTED,
C. E. JAMISON
STATE GEOLOGIST.

CHEYENNE, WYO., FEBRUARY 20, 1912

COPPER KING MINE, LARAMIE COUNTY, WYO.

DIAMOND DRILL HOLE NO. 1

ASSAYED BY
FEDERAL MINING AND SMELTING CO
WALLACE TESTING PLANT
WALLACE, IDAHO

FEET	CORE REC'D %	AU. OZ.	AG. OZ.	CU. %
0-5	.25	.045	.12	.38
5-10	.75	.07	.15	.42
10-15	.75	.05	.09	.64
15-20	.50	.07	.07	.56
20-25	.48	.045	.03	.34
25-30	.57	.04	.04	.34
30-35	.75	.06	.04	.36
35-40	.95	.06	.05	.40
40-45	.75	.065	.05	.44
45-50	.80	.06	.04	.42
50-55	.75	.13	.23	1.36
55-60	.93	.07	.09	.86
60-65	.88	.11	.03	.66
65-70	.93	.13	.11	.64
70-75	.95	.10	.07	.48
75-80	.90	.08	.08	.46
80-85	.92	.07	.10	.40
85-90	.80	.07	.09	.66
90-95	.87	.095	.13	.86
95-100	.92	.12	.15	.62
100-105	.87	.10	.10	.54
105-110	.95	.08	.13	.92
110-115	.80	.11	.17	.98
115-120	.70	.07	.07	.30
120-125	.93	.07	.07	.48
125-130	.97	.08	.12	.48
130-135	.93	.05	.10	.38
135-140	.82	.12	.13	.84
140-145	.97	.11	.13	.68
145-150	.93	.05	.06	.34
150-155	.90	.10	.18	.62
155-160	100	.11	.13	.72
160-165	.97	.09	.13	.48
165-170	.90	.07	.13	.36
170-175	.85	.08	.16	.30
175-180	.90	.06	.09	.36
180-185	.87	.06	.08	.35
185-190	.80	.08	.10	.42
190-195	.89	.06	.16	.46
195-200	.90	.05	.03	.26
200-205	.80	.02	.06	.08
205-210	.70	.07	.13	.34
210-215	.70	.06	.04	.42
215-220	.38	.03	.03	.28
220-225	.38	.08	.04	.48
225-230	.97	.08	.04	.48
230-235	.92	.04	.02	.39
235-240	.92	.05	.06	.22
240-245	.97	.07	.07	.36
245-250	.97	.15	.09	.50

COPPER KING MINE, LARAMIE COUNTY, WYO.

DIAMOND DRILL HOLE NO. 1

ASSAYED BY
FEDERAL MINING AND SMELTING CO.
WALLACE TESTING PLANT
WALLACE, IDAHO

FEET	CORE REC'D %	AU. OZ.	AG. OZ.	CU. %
250-255	.97	.015	.05	.22
255-260	.97	.04	.06	.32
260-265	.93	.04	.06	.36
265-270	.97	.03	.05	.28
270-275	.93	.02	.04	.24
275-280	.93	.025	.04	.32
280-285	.97	.03	.05	.24
285-290	.93	.08	.08	.48
290-295	.92	.07	.07	.46
295-300	.90	.08	.08	.44
300-305	.97	.035	.06	.32
305-310	.97	.08	.07	.48
310-315	.97	.08	.12	.34
315-320	.93	.08	.10	.42
320-325	.87	.07	.09	.38
325-330	.97	.05	.07	.21
340-345	.92	.07	.07	.35
345-350	.97	.02	.02	.18
350-355	.92	.04	.04	.20
355-360	.95	.04	.04	.10
360-365	.95	.02	.02	.26
365-370	.95	.03	.03	.18
370-375	.95	.03	.03	.20
375-380	.98	.03	.04	.20
380-385	.95	.03	.04	.22
385-390	.95	.03	.09	.22
390-395	.97	.03	.06	.25
395-400	.87	.03	.05	.22
400-405	.92	.04	.06	.18
405-410	100	.04	.04	.28
410-415	100	.025	.05	.24
415-420	100	.02	.03	.20
420-425	.95	.025	.035	.18
425-430	.98	.005	.015	.06
430-435	.90	.05	.06	.42
435-440	.38	.025	.085	.18
440-445	.98	.025	.085	.20
445-450	.75	.04	.08	.32
450-455	.90	.01	.04	.16
455-460	.93	.01	.03	.16
460-465	.87	.015	.04	.22
465-470	.62	.07	.05	.40
470-475	.80	.015	.035	.26
475-480	.55	.03	.03	.26
480-485	.15	.03	.03	.22
485-490	.67	.015	.035	.28
490-495	.88	.03	.04	.22
495-500	.90	.02	.04	.22

COPPER KING MINE, LARAMIE COUNTY, WYO

DIAMOND DRILL HOLE NO. 2

ASSAYED BY
FEDERAL MINING AND SMELTING CO.
WALLACE TESTING PLANT
WALLACE, IDAHO

FEET	CORE REC'D %	AU. OZ.	AG. OZ.	CU. %
0-5	.23	.03	.11	.22
5-10	.50	.04	.09	.36
10-15	.30	.03	.09	.22
15-20	.75	.06	.07	.46
20-25	.67	.05	.07	.38
25-30	.80	.05	.13	.32
30-35	.87	.11	.10	.56
35-40	.97	.085	.10	.88
40-45	.80	.22	.10	.88
45-50	.63	.16	.16	.98
50-55	.87	.20	.14	.62
55-60	.95	.10	.11	.52
60-65	.97	.11	.09	.62
65-70	.95	.18	.13	.54
70-75	.93	.085	.10	.72
75-80	.80	.065	.08	.44
80-85	.67	.09	.09	.58
85-90	.72	.10	.12	.78
90-95	.60	.10	.09	.62
95-100	.90	.11	.12	.90
100-105	.72	.09	.12	.88
105-110	.83	.13	.13	.96
110-115	.53	.16	.16	1.06
115-120	.33	.12	.11	.84
120-125	.92	.11	.15	.92
125-130	.93	.08	.12	.60
130-135	.93	.105	.13	1.04
135-140	.80	.05	.07	.40
140-145	.85	.185	.17	1.18
145-150	.60	.10	.19	1.30

COPPER KING MINE, LARAMIE COUNTY, WYO.

DIAMOND DRILL HOLE NO. 2

ASSAYED BY
FEDERAL MINING AND SMELTING CO.
WALLACE TESTING PLANT
WALLACE, IDAHO

FEET	CORE REC'D %	AU. OZ.	AG. OZ.	CU. %
150-155		.05	.26	.48
155-160		.04	.48	.18
160-165		.05	.06	.42
165-170				
170-175				
175-180				
180-185				
185-190				
190-195	.90	.02	.10	.26
195-200		.07	.06	.40
200-205	.57	.015	.09	.26
205-210	.60	.03	.05	.20
210-215	.80	.11	.07	.46
215-220	.50	.07	.06	.38
220-225	.98	.05	.05	.26
225-230	100	.085	.07	.40
230-235	.97	.12	.10	.52
235-240	.93	.14	.13	.60
240-245	.60	.12	.10	.60
245-250	.88	.05	.06	.28
250-255	.93	.04	.05	.18
255-260	.92	.05	.06	.30
260-265	.90	.05	.07	.24
265-270	.65	.02	.04	.19
270-275	.50	.06	.06	.32
275-280	.85	.01	.05	.12
280-285	.97	.04	.06	.34
285-290	.80	.01	.04	.16
290-295	.80	.015	.05	.20
295-300	.75	.04	.04	.30

COPPER KING MINE, LARAMIE COUNTY, WYO

DIAMOND DRILL HOLE NO. 3

ASSAYED BY

FEDERAL MINING AND SMELTING CO.
WALLACE TESTING PLANT
WALLACE, IDAHO

FEET	CORE REC'D %	AU. OZ.	AG. OZ.	CU. %
0-5	.05	.01	.09	.02
5-10	.05	.015	.07	.12
10-15	.50	.01	.07	.10
15-20	.75	.01	.04	.24
20-25	.87	.01	.04	.14
25-30	.92	.01	.04	.14
30-35	.90	.01	.03	.12
35-40	.80	.01	.03	.10
40-45	.10	.005	.025	.04
45-50	.55	.025	.03	.20
50-55	.80	.02	.05	.22
55-60	.83	.02	.05	.24
60-65	.85	.02	.03	.18
65-70	.95	.02	.02	.18
70-75	.93	.01	.02	.12
75-80	.95	.01	.04	.10
80-85	.95	.015	.065	.20
85-90	.67	.015	.05	.18
90-95	.80	.02	.03	.18
95-100	.90	.01	.02	.10
100-105	.80	.01	.03	.08
105-110	.72	.01	.04	.10
110-115	.60	.01	.02	.08
115-120	.95	.01	.02	.11
120-125	.95	.01	.03	.17
125-130	.95	.05	.22	.86
130-135	.92	.01	.03	.19
135-140	.98	.01	.03	.11
140-145	.95	.01	.04	.10
145-150	.95	.01	.04	.16
150-155	.95	.005	.02	.04
155-160	.95	.01	.02	.12
160-165	.95	.01	.05	.18
165-170	.93	.02	.08	.38
170-175	.83	.01	.03	.13
175-180	.83	.02	.05	.24
180-185	.60	.05	.09	.56
185-190	.90	.02	.07	.35
190-195	.83	.01	.03	.10
195-200	.83	.01	.03	.09

COPPER KING MINE, LARAMIE COUNTY, WYO

DIAMOND DRILL HOLE NO. 4

ASSAYED BY
FEDERAL MINING AND SMELTING CO.
WALLACE TESTING PLANT
WALLACE, IDAHO

FEET	CORE REC'D %	AU. OZ.	AG. OZ.	CU. %
0-5	.33	.03	.07	.22
5-10	.10	.035	.05	.28
10-15	.15	.045	.06	.32
15-20	.33	.05	.06	.38
20-25	.70	.04	.04	.30
25-30	.70	.06	.03	.36
30-35	.27	.04	.11	.28
35-40		.05	.07	.28
40-45	.60	.06	.05	.26
45-50	.55	.04	.06	.24
50-55	.40	.06	.07	.36
55-60	.33	.03	.04	.24
60-65	.40	.04	.06	.26
65-70	.80	.03	.04	.22
70-75	.55	.025	.06	.20
75-80	.85	.11	.05	.34
80-85	.60	.16	.06	.52
85-90	.70	.10	.07	.62
90-95	.88	.05	.07	.40
95-100	.97	.045	.035	.24
100-105	.97	.04	.04	.32
105-110	.97	.04	.05	.24
110-115	.70	.05	.15	.32
115-120	.98	.05	.16	.46
120-125	.60	.03	.09	.32
125-130	.85	.045	.14	.34
130-135	.90	.05	.12	.30
135-140	.97	.025	.05	.22
140-145	.92	.03	.10	.32
145-150	.97	.025	.06	.22
150-155	100	.025	.07	.28
155-160	.98	.03	.05	.28
160-165	.92	.04	.06	.36
165-170	.97	.03	.06	.28
170-175	.97	.035	.035	.36
175-180	.92	.03	.05	.24
180-185	.90	.02	.08	.32
185-190	.73	.025	.05	.28
190-195	.68	.015	.05	.18
195-200	100	.01	.06	.26

REGIONAL DIRECTOR'S
OFFICE
REGION IV
FEB 1 - 1951
BUREAU OF MINES
DENVER, COLORADO

APPLICATION FOR LOAN

Under

THE DEFENSE PRODUCTION ACT

Containing information requested in bulletin issued by Regional Director, Bureau of Mines, Region IV, Denver, Colorado

ANSWERS TO QUESTIONS

Question #1. The Copper King Mine.

Located in the Silver Crown Mining District.

Sections 25 & 36, Twn. 14N, R 70 W, Laramie County, Wyoming.

There is no present operating company.

The Copper King Mine and adjacent areas are held by long term lease by Mr. Harry Ferguson, Box 621, Cheyenne, Wyoming.

Associated with Mr. Ferguson are the following:

Mr. P.W. Dinneen, Cheyenne, Wyoming

Mr. J.H. Rodgers, Boulder, Colorado

Mr. C.R. Boyle, Boulder, Colorado.

#2. There are no records of past production.

The mine was located first in 1883. A shaft 130' deep was sunk on the main mineralized zone. Drifts were driven on the 80' and 130' levels from this shaft amounting to about 300' in all. Tunnels were driven into the hill at various points within a one mile radius of the shaft, the total amount of tunnel work being about 800'. It is assumed that all of this work was done looking for high grade ore: it is the presence of copper showings in all of these scattered workings that has caused the above group to be interested in the property.

Question #3. A loan is requested to do the following work.

A. Diamond Drilling of the known mineralized structures.

B. Depending on the results of "A", a further loan will be requested to develop ore and provide a mill.

1. Estimated cost of the proposed diamond drilling is, including logging of cores and assaying, $80,000.00.

   a. The planned drilling totals approximately 16,000 feet.

   b. Estimated contract cost is $4.25 per foot.

2. Estimated cost of developing ore, including equipment is $448,000.00.

3. Estimated cost of mill ready for operation, including water supply, is $1,000,000.00.

#3. a. Maps are attached.

b. No equipment is available or owned by the group. Electric power, Public Service Co., is available within one mile of the property.

c. Equipment required depends on the results of the exploratory work. In the mind of the writer a 1000 ton per day operation may become feasible. Should this be the case, complete equipment for both the mine and the mill will be required.

Question #3. Continued.

Part d. There are no employees at present.

e. It is assumed that the diamond drilling can be done under the supervision of the U.S. Geological Survey or The Bureau of Mines and that contracts may be let to the major drilling companies. In the event of an operation a complete crew will have to be found. The writer believes that men can be found locally.

f. The ore will be milled on the property in a company owned mill. The milling process will be a simple bulk flotation of chalcopyrite with a probable concentration ratio of 30 into 1. Concentrates will be shipped to a Utah Smelter. The mill will be built in the best place suitable to the entire operation. There are several good millsites in the immediate vicinity of the present shaft. Some water is available in Crow Creek within 1 mile of the mine. Additional water can be developed in tertiary sandstone beds 1500' E of the mine.

g. The planned operation is to mill 1000 tons per day. Estimated production is:

Copper	11,000	lbs. per day.
Gold	60	ozs. per day.
Silver	100	ozs. per day.

Question #3. Continued.

Part h. Time required for above work.

Diamond Drilling: Time required for completion will depend upon the number of machines placed on the job. An average of 25' per shift per machine may be used as a basis. The weather permits year round work.

Nine months to twelve months is the estimated time required to place a 1000 ton plant in operation; together with enough ore developed to assure continuous operation.

i. The mine is accessible at all times of the year. It is located 22 miles west of Cheyenne, Wyoming and is within one mile of a good county road.

j. The minimum grade of ore expected to be shown by the diamond drilling is:

Copper	0.60% per ton.
Gold	0.06 ozs. per ton.
Silver	0.10 ozs. per ton.

If copper were 25¢ per pound for a period of five years of operation, the writer believes that the investment can be returned and a profit realized.

Question #4. Ore Reserves:

A. Measured Ore. There is no measured ore.

B. Indicated ore. The indicated ore is considered to be in a zone approximately 200' wide by 400' long. See Map "A". This area will provide over 600,000 tons per 100' in depth. This ore is indicated by diamond drill holes and by sampling on the 80' and 130' levels.

Question #4. Continued.

Part B. Indicated Ore. Continued.

(See attached drill logs and the copy of the Report on the Arizona Mine, (correct name is Copper King) by C.E. Jamison, 1912)

It is believed by the writers that a higher average grade for the whole structure will result from new drilling pointed mainly across the structure instead of vertically in the structure as are the present holes. A portion of the recommended drilling is in the area of the present holes.

C. Inferred Ore. No figures can be given as to grade and tonnage of inferred ore. On map "B" are shown additional structures of geologic character similar to the indicated ore zone and in which we have seen definite showings of copper, i.e. Chalcopyrite, Bornite and Malachite. The size and value of these structures can only be determined by diamond drilling and a portion of the planned drilling is intended to explore these structures. It will be noted that these structures extend East and West for over 2000', it is believed that some portion of this may be mineralized to the same extent in size and grade as the indicated ore zone.

Question #5. Reports are Attached.

Question #6. Of the above mentioned group, two members have had mining experience.

Question #6. Continued.

Mr. J.H. Rodgers is a Mining Geologist. His experience includes the favorable development of large tonnage mines in North America and management of mines in Mexico. He has been continuously engaged for over 40 years in the profession of mining engineering.

Mr. C.R. Boyle has been active in the mining industry for 20 years. He is a licensed engineer in the State of Colorado. His experience includes engineering work, successful operation of mines and mills and examination of mining properties.

Question #7. All data are included.

Question #8. Several companies, among them A. S. & R., Kennecott Copper Co., and New Jersey Zinc have examined the property in the last 12 years. They have evidently felt that the ore is too marginal in grade, although most of them have expressed some regard for the mineralization.

Submitted by C.R. Boyle
Licensed Mining Engineer

2333 Spruce Street
Boulder, Colorado

REPORT ON THE ARIZONA GROUP, HECLA, LARAMIE COUNTY, WYO.

LOCATION

THE ARIZONA GROUP IS SITUATED IN THE N½ OF THE N½ OF SECTION 36, AND THE S½ OF THE S½ OF SECTION 25, T. 14 N., R. 70 W., AT A POINT ONE MILE SOUTHWEST OF HECLA POSTOFFICE, TWENTY-TWO MILES WEST OF CHEYENNE AND FOUR MILES NORTHWESTERLY FROM GRANITE CANON STATION ON THE UNION PACIFIC RAILROAD, IN LARAMIE COUNTY, WYOMING.

EXTENT

THIS GROUP CONSISTS OF FOUR CLAIMS, NAMELY:
THE ARIZONA LODE CLAIM.
THE GOLD COIN LODE CLAIM.
THE ANACONDA LODE CLAIM.
THE NEVADE LODE CLAIM.
THESE COVER ABOUT EIGHTY ACRES, HELD BY LOCATION AND DISCOVERY BY HORACE E. ADAMS, HECLA, WYO., UNDER THE LAWS OF THE UNITED STATES AND THE STATE OF WYOMING

HISTORY

THE ARIZONA GROUP IS ONE OF THE OLDEST ACTIVE LOCATIONS IN WYOMING AND HAS BEEN KNOWN FOR MANY YEARS AS A VALUABLE LOW GRADE PROPERTY BUT IN THOSE DAYS THESE ORES WERE NOT AVAILABLE FOR PROFITABLE WORK BY THE METHODS OF EXTRACTION THEN KNOWN AND THE LOW PRICE OF COPPER AT THAT TIME.

IN 1886 PROF. WILBUR C. KNIGHT, DEPARTMENT OF MINING ENGINEERING AND GEOLOGY, UNIVERSITY OF WYOMING, LARAMIE, WYO., OBTAINED NUMEROUS SAMPLES FROM THIS PROPERTY AND IN HIS SWORN STATEMENT FILED IN THE CONTEST CASE CONCERNING THIS GROUP BEFORE THE UNITED STATES GENERAL LAND OFFICE, GAVE THE FOLLOWING ASSAYS OF VALUES OBTAINED (PRICES AT 1886 QUOTATIONS):

No.	GOLD oz.	SILVER oz.	COPPER %	TOTAL VALUE.
1	10.50	8.00	....	$218.00
2	.70	TRACE	....	14.00
3	.30	TRACE	....	6.00
4	.45	3.60	....	12.60
5	TRACE	TRACE	....	.....
6	.....	TRACE	....	.....
7	.20	TRACE	....	4.00
8	1.30	1.40	....	27.40
9	TRACE	3.00	....	3.00
10	.40	2.00	....	10.00
11	.45	1.60	....	10.60
12	TRACE	TRACE	....	.....
13	.25	TRACE	....	5.00
14	.15	TRACE	....	3.00
15	.20	TRACE	....	4.00
16	.40	1.10	....	9.10
17	.10	1.30	....	3.30
18	.21	TRACE	1.32	7.36
19	.32	TRACE	.87	6.40
20	1.85	1.95	....	38.95
21	.50	2.00	....	12.00
22	.50	TRACE	....	10.00
23	TRACE	2.40	....	2.40
24	2.10	2.99	13.24	76.01
25	.50	....	9.71	43.30

AS ABOVE NOTED ONLY FOUR OF THESE SAMPLES WERE ASSAYED FOR COPPER AND THE WHOLE LIST IS HERE GIVEN TO SHOW THE ACTUAL GRADE OF THE ORE TAKEN FROM THE WORKINGS AT VARIOUS TIMES AND THE GENERAL VALUES OF THE SAME.

GENERAL GEOLOGY

THE OLD MINING CAMP OF SILVER CROWN AND HECLA IS SITUATED IN THE SOUTHERN END OF THE RANGE OF MOUNTAINS KNOWN AS THE LARAMIE HILLS, WHICH EXTEND NORTH AND SOUTH ALONG THE LARAMIE-ALBANY COUNTY LINE.

THE GENERAL FORMATION OF THIS RANGE CONSISTS OF A CORE OF GRANITES FLANKED ON EITHER SIDE BY THE SUCEEDING SEDIMENTARY FORMATIONS, LIMESTONES, SHALES, SANDSTONES, ETC. THE GRANITE IS USUALLY OF A REDDISH FELDSITIC VARIETY, BUT GRAY GRANITE IS OFTEN NOTED AND BOTH FORMS OF GRANITE ARE FOUND TO CONTAIN NUMEROUS DYKES, LEDGES AND BANDS OF GNEISS, SCHIST AND DIORITE, GABBRO AND OTHER DYKE ROCKS, AND IT IS HERE NOTED THAT THE MINERAL SHOWINGS OF THIS RANGE ARE ALL FOUND TO OCCUR IN INTIMATE CONNECTION WITH THESE DYKES OF LEDGES.

THESE SHOWINGS VARY IN DIFFERENT PARTS OF THE HILLS BUT UNIFORMLY SHOW COPPER ORES WITH WELL DEFINED SURFACE INDICATIONS, WHILE THE TREND OR DIRECTION OF THE VEINS OR LEDGES, AS WELL AS THAT OF THE DYKES, ETC., VARY LOCALLY IN THE DIFFERENT CAMPS OF THE RANGE.

THE ARIZONA GROUP

AT THIS POINT THE GENERAL FORMATION IS GRANITE, CUT BY A SERIES OF HUGE DYKES OF GABBRO AND ALLIED ROCKS SHOWING MUCH SURFACE ALTERATION AND THE WHOLE GENERAL TREND OF THESE DYKES IS EASTERLY AND WESTERLY.

THE MOST PROMINENT OF THESE OUTCROPS IS COVERED BY THE TREND OF THIS GROUP AND SHOWS A HEAVILY MINERALIZED BAND OF ALTERED GABBRO-DIRITE EXTENDING EAST AND WEST FROM THE MAIN SHAFT OF THIS GROUP FOR A DISTANCE OF ABOUT TWO THOUSAND FEET AND NEARLY TWO HUNDRED FEET IN WIDTH.

THIS BELT OR BAND SHOWS A NUMBER OF SMALLER DYKES OR LEDGES, ALL MORE OR LESS MINERALIZED AND THE WHOLE SHOWS A BROKEN, CRUSHED AND FISSURED CONDITION, WITH THE SMALL FISSURES AND CRACKS FILLED WITH SMALL STRINGERS OF QUARTZ AND THE USUAL COPPER-IRON SULPHIDES AND ALLIED MINERALS. AT THE SURFACE IS NOTED THE BROWN AND RED IRON OXIDES FOUND IN ALL COPPER CAMPS STAINING THE SURFACE ROCKS AND SHOWING THE COPPER CARBONATES AND OXIDES AND NATIVE COPPER THROUGHOUT THE MASS.

NUMEROUS CUTS AND SHAFTS HAVE BEEN MADE ON THE LENGTH AND BREADTH OF THIS HUGE OUTCROP AND THE VALUES ALREADY NOTED IN THESE HOLES INDICATE THE WHOLE TO BE MINERALIZED TO A REMARKABLE DEGREE AND TO FORM ALL A MASS OF WHAT IS PRACTICALLY A COMMERCIAL ORE, WHEN HANDLED IN A SUITABLE METHOD OF TREATMENT AND ON A PROPER SCALE.

MAIN SHAFT

THIS HAS BEEN SUNK AT A POINT ON THE ARIZONA CLAIM AND THE WORKINGS ARE AS FOLLOWS:

MAIN SHAFT	160 FEET
80 FOOT LEVEL, DRIFT NORTH	80 FEET
80 FOOT LEVEL, DRIFT SOUTH	20 FEET
130 FOOT LEVEL, DRIFTS NORTH	110 FEET
130 FOOT LEVEL, DRIFTS SOUTH	40 FEET
SHAFT DEVELOPMENT	410 FEET

THIS SHAFT WAS SUNK IN ORE THE WHOLE DISTANCE, AS MAY BE NOTED IN THE PRESENT WALLS, AND DRIFTS RUN AT ABOVE NOTED DEPTHS IN THE ORE.

AT THE EIGHTY FT. LEVEL THE OXIDIZED MATERIALS STILL HOLD, PASSING OUT A SHORT DISTANCE BELOW AND HERE IS NOTED A GOOD SHOWING OF THE ORE IN THE STRINGERS AND STREAKS NOTED THROUGHOUT THE MAIN MASS, AS WELL AS THE ORE CONDITION OF THE DYKE WHICH SHOWS IN THE SIDE OF WALLS AND THE ROOF ALONG THE WHOLE DRIFT. NO SAMPLE WAS TAKEN HERE.

ON THE LOWER OR 130 FT. LEVEL HAS BEEN DONE THE PRINCIPAL DEVELOPMENT WORK OF THE MINE AND THE GREATEST SHOWING MADE. THE DRIFTS ON THE NORTH SIDE OF THE SHAFT HAVE BEEN WIDENED OUT INTO CHAMBERS FROM 20 TO 40 FEET IN WIDTH AND SHOW THAT THE WHOLE MASS IS PRACTICALLY ALL ORE, AS THE COPPER MINERALS MAY BE NOTED AT NEARLY ANY POINT ON THE WALLS.

SEVERAL STREAKS ARE NOTED, VARYING FROM FOUR TO EIGHT FEET ACROSS WHICH APPERR MORE HEAVILY MINERALIZED THAN THE MAIN MASS AND ON THESE BANDS THE DRIFTS OF THE MINE SHOULD BE RUN.

ON THIS LEVEL THE ORE SHOWS THE SULPHIDE CONDITION USUAL AT SUCH A DEPTH, BUT NATIVE COPPER IS ALSO SHOWN IN THIS ORE.

SAMPLES WERE TAKEN AT DIFFERENT POINTS IN THE FACES AND ASSAY RESULTS ARE AS FOLLOWS:

NO. 1, EAST SIDE, EAST ROOM---GOLD, $5.20; SILVER TRACE; COPPER, $3.70 VALUE, $8.90.

NO 2, WEST SIDE, EAST ROOM---GOLD, $0.80; SILVER TRACE; COPPER $0.57 VALUE, $1.37

NO. 3, NORTH SIDE , WEST ROOM---GOLD, $3.20; SILVER, TRACE; COPPER, $4.80; VALUE, $8.00

NO. 4, SOUTHSIDE, WEST ROOM---GOLD, $1.20; SILVER, TRACE; COPPER $3.30; VALUE, $4.50.

THESE SAMPLES WERE TAKEN AT RANDOM BUT SHOW THE GENERAL GRADE OF THE OR E AS WELL AS HAND SAMPLES USUALLY DO AND AGREE GENERALLY WITH THE MOST RELIABLE RESULTS SO FAR OBTAINED BY LARGE SAMPLES.

A SAMPLE WAS ALSO TAKEN AT RANDOM FROM THIS ORE NOW ON THE DUMP AND RESULTS ARE AS FOLLOWS:

NO. 1, RANDOM SAMPLE FROM DUMP-- GOLD $2.80, SILVER, TRACE; COPPER $4.20; VALUE, $7.00.

IT IS EVIDENT THAT THIS ORE CARRIES A LOW BUT CONSTANT GOLD AND COPPER VALUE AND THAT UNDER THE PROPER TREATMENT CAN BE MADE TO SHOW A FAIR PROFIT, THE QUANTITY AND MINING FACILITIES BEING FAVORABLE.

THIS ORE IS CONSIDERED TO BE ADAPTABLE TO A FINE-CRUSHING, CONCENTRATING-CYANIDING TREATMENT ON A LARGE SCALE AND IS BELIEVED THAT IT WOULD YIELD READILY TO SUCH TREATMENT IN A PROPERLY DESIGNED PLANT.

SAMPLING SHOULD ONLY BE DONE IN NOT LESS THAN TON LOTS AS THE VALUES ARE SO SCATTERED THROUGHOUT THE MASS THAT SMALL SAMPLES WILL NOT GIVE A FAIR IDEA OF THE VALUES CONTAINED.

MILL SITES

NO DIFFICULTY NEED BE EXPERIENCED IN SELECTING A PROPER SITE FOR THE LARGEST WORKS IN THE VICINITY, EITHER ON THIS PROPERTY OR AT THE MAIN CROW CREEK BELOW THE PRESENT SHAFT, AS WATER MAY BE BROUGHT TO EITHER SITE AND THERE IS AMPLE FALL FOR ALL PURPOSES.

WATER AND TIMBER, ETC.

WATER MAY BE HAD FROM EITHER SOUTH CROW OR MIDDLE CROW CREEK AND PUT ON ANY CONVENIENT SPOT. THERE IS NO TIMBER ON THE GROUP BUT THE NEARNESS TO RAILROAD FOR ALL FUEL, TIMBER AND SUPPLY PURPOSES RENDERS THIS UNIMPORTANT.

IT IS CONSIDERED THAT THE ARIZONA GROUP OFFERS A SPLENDID OPPORTUNITY FOR THE DEVELOPMENT ON A LARGE SCALE OF A LARGE BODY OF COMMERCIAL ORE AND THAT THE SHOWINGS MADE FULLY WARRANT ITS FURTHER EXPLOITING AND TREATMENT IN A PROPER PLANT.

RESPECTFULLY SUBMITTED,

HENRY C. BEELER,
STATE GEOLOGIST.

DATE OF EXAMINATION,

JANUARY 12, 13, 1907.

Form "L" 1937
Amended Dec.1,1938

LODE MINING LEASE

THIS INDENTURE OF LEASE entered into in triplicate this 16th. day of December, A. D. 1947, by and between the STATE OF WYOMING, acting by and through its Board of Land Commissioners, party of the first part, hereinafter called the lessor, and Harry E. Ferguson & Patick W.Dinneen,Sr., party of the second part, hereinafter called the lessee.

SEC. 1. - PURPOSES. The lessor, in consideration of the rents and royalties to be paid and the covenants and agreements hereinafter contained and to be performed by the lessee, does hereby grant and lease to the lessee the exclusive right and privilege to prospect, mine, extract and remove from any lode, lead, vein or ledge or any deposit which may properly be classified as a lode deposit and dispose of, all of the gold, silver, copper, platinum, zinc, lead, iron, cobalt, tungsten and associated metals of whatever kind in or under the following described land, to-wit:

LEASE

ACRES	DESCRIPTION	SEC.	TP.	RG.
640	ALL	36	14	70

consisting of 640.00 acres more or less, Laramie County together with the right to construct and maintain thereon all works, buildings, plants, waterways, roads, communication lines, power lines, tipples, hoists, or other structures and appurtenances necessary to the full enjoyment thereof, subject, however, to the conditions hereinafter set forth.

SEC. 2. - TERM OF LEASE. This lease, unless terminated at an earlier date as hereinafter provided, shall remain in full force and effect for a term of ten (10) years from and after the date hereof (expiring at midnight on the 15th. day of December, A. D. 1957).

SEC. 3. - In consideration of the foregoing the LESSEE COVENANTS AND AGREES:

(a) BOND. - To furnish a bond with an approved corporate surety company authorized to transact business in the State of Wyoming, or such other surety as may be acceptable to the lessor, in the penal sum of TEN Dollars ($10.00), conditioned upon the payment of all moneys, rentals, and royalties accruing to the lessor under the terms hereof, and upon full compliance of all other terms and conditions of this lease and the Rules and Regulations relating thereto, and also conditioned upon payment of all damages to the surface and improvements thereon where the lease covers lands the surface of which has been sold or otherwise leased. Such bond or bonds furnished while operations conducted thereon are of a prospective nature may be increased in such reasonable amount as the lessor may decide upon the commencement of actual mining operations or during conduct thereof.

(b) PAYMENTS. - To make all payments as due or accruing hereunder to the Commissioner of Public Lands, Capitol Building, Cheyenne, Wyoming.

(c) RENTALS. - Prior to the discovery of commercial quantities of the said mineral or minerals in the lands herein leased to pay to the lessor in advance, beginning with the effective date hereof, an annual rental of Fifty Dollars ($50.00); provided, however, that if the said lands are not on a commercial mining basis and so operated at the end of two years from the date hereof, such annual rental may be increased, at the option of the lessor, to such an amount as the lessor may decide to be fair and equable.

rb

After the discovery of commercial quantities of said mineral or minerals in the lands herein leased to pay to the lessor in advance, beginning with the first day of the lease year succeeding the lease year in which commercial discovery was made, an annual rental of TWO-HUNDRED & FIFTY Dollars ($250.00) unless changed by agreement, such rental so paid for any one year to be credited on the royalty for that year.

(d) ROYALTY. - To pay to the lessor royalties on mine values of ore mined, produced, saved and marketed from herein leased lands in accordance with the following schedule:

On ore of a value of	$10.00 or less per ton -	5%
" " " " " "	10.01 to $20.00 " " -	7½%
" " " " " "	20.01 to $30.00 " " -	10%
" " " " " "	30.01 to $50.00 " " -	15%
" " " " " "	50.01 to 100.00 " " -	20%
" " " " " "	100.01 and over " " -	25%

In determining the mine values of ores under the above schedule such values shall be taken as the values of the ores at the smelter after deducting the costs of transportation, sampling, assaying and mill and smelter charges or the net back to the producers or lessee, which ever is higher.

Royalties determined as above shall be based upon a complete cleanup of all values at the end of each calendar month so far as reasonably possible. *

* If concentrates are shipped to the smelter a record shall be kept of the tonnage of crude ores actually concentrated in each respective shipment of concentrates and the ore per ton for royalty purposes shall be based on the value of the crude ore so involved before concentration. (Added in accordance with Board Action October 6, 1949)

(e) MONTHLY PAYMENTS AND STATEMENTS. - To make payment in full on or before the twentieth (20th) day of the calendar month succeeding the month of production for all metals mined from the land; and to furnish sworn monthly statements therewith showing in tons or cubic yards the amount of all ore mined; and such other information as may be called for in the form of reports prescribed by the lessor. These statements are to be subject to verification by examination of the books and records of the lessee.

(f) WORKINGS. - That all mining operations and workings shall be conducted in such a manner so as to remove all valuable metals and ores of the metals in the deposits worked so far as is economically possible; that all shafts, inclines, and tunnels shall be well timbered (when good mining practice requires timbering); that all underground timbering placed in the mines and necessary to the preservation of the property and safety of the workmen shall be kept in good condition and repair and at no time shall such timbering be removed unless all of the valuable ore has been removed and such removal will in no way or manner interfere with or prevent future mining operations in the land; that at the expiration of this lease, or earlier termination thereof, all underground timberings shall become the property of the lessor without compensation therefor to the lessee; that all parts or workings when the ore is not exhausted and for good reasons not being worked shall be kept free of water and debris; that underground workings will be protected against fire and flood, and creeps and squeezes will be checked without delay, and to leave such pillars as may be necessary to support the cover and protect the slopes, air courses, manways, and hauling roads.

(g) MAPS AND REPORTS. - On the first of each calendar year to furnish the Commissioner of Public Lands with two prints of a map of the leased land showing the location, depth, and results of all prospect holes or pits sunk, roads and bridges constructed, improvements made, and the location and extent of excavations from which ore has been removed together with dimensions of such deposit at ten foot intervals plotted therein; and to make such other reports pertaining to the production and operations by the lessee as may be called for by the lessor.

(h) TAXES AND WAGES. - FREEDOM OF PURCHASE. - To pay, when due, all taxes lawfully assessed and levied under the laws of the State of Wyoming upon improvements and values produced from the land hereunder, or other rights, property or assets of the lessee; to accord all workmen and employees complete freedom of purchase, and to pay all wages due workmen and employees at least once each month in lawful money of the United States.

(i) STATUTORY REQUIREMENTS AND REGULATIONS. - To comply with all State statutory requirements and valid regulations thereunder.

(j) ASSIGNMENT OF LEASE. - MINING AGREEMENTS. - (1) Not to assign this lease or any interest therein, nor sub-let any portion thereof, except with the consent in writing of the lessor first had and obtained.

(2) To submit a signed copy of any mining agreement entered into affecting the possessory title to any of the land hereby leased for approval by the lessor.

Form "L" 1937
Amended Dec.1,1938

(3) All over-riding royalties to be valid must have the approval of the Board and be recorded with the lease. The Board reserves the right of disapproval of such over-riding royalties when in its opinion they become excessive and hence are detrimental to the proper development of the leased lands.

(k) DELIVER PREMISES IN CASE OF FORFEITURE. - To deliver the leased premises with all permanent improvements thereon, in good order and condition, in case of forfeiture of this lease; but this shall not be construed to pervent the removal, alteration or renewal of equipment and improvements in the ordinary course of operations.

(l) DILIGENCE IN DEVELOPMENT. - This lease is granted with the express understanding that prospecting, lode mining, and the recovery of the valuable mineral content of the above-described lands shall be pursued with diligence, and if at any time the lessor has reasonable belief that the operations are not being so conducted it shall so notify lessee in writing, and if compliance is not promptly obtained and the delinquency fully satisfied, it may then, at the end of any lease year, declare this said lease terminated, and offer the said lands to the highest and best bidder, and upon such terms as the lessor may prescribe; provided, that the herein designated lessee may have a preferential right to a new lease on the same terms and conditions as offered in the best bid; provided, however, that if the lessee fails or refuses to exercise such right the improvements then on the property shall be disposed of pursuant to Section 6 of this lease.

SEC. 4. - GENERAL COVENANTS:

(a) The lessee shall have the right to enter upon, occupy and enjoy such surface areas of the described tract as are necessary for lode mining, and the construction of all buildings and other surface improvements incidental to the work contemplated by this lease; but the lessee shall fully protect the rights of any agricultural and grazing leases which have heretofore or may hereafter be granted by erecting cattle guards or gates and keeping closed gates in all fences in which openings are or may be made, and for protection of stock grazing thereon to fence or close all holes, pits or open cuts in which injury might be sustained, and shall not contaminate any living water upon the land so as to make it injurious to livestock; and, further, should the lessee or any person holding from, by or under the lessee, in any operation on said premises under this lease, destroy or injure any crop, building or other improvements of any tenant, lessee, purchaser or other person holding under the State, the lessee agrees to fully indemnify all such injured parties in such sum or sums as may be mutually agreed upon by the respective parties, or as may be fixed by appraisers appointed by each party if agreement is impossible, or the Board of Land Commissioners may fix the amount of such indemnity after inspection or hearing.

The rights of the lessee hereunder are subject further to the prior right of any other mineral lessee, his sub-lessee, or operator under any other mineral lease or leases now in force, or renewals thereof; to enjoy the free use of so much of the surface of the said lands as are necessary and incidental to their operations thereunder; and lode mining operations shall be conducted so as not to unduly interfere with the natural production operations, nor shall lode mining operations be conducted nearer than two hundred feet from any productive oil or gas well without consent of the oil and gas lessee; and the lessee further shall not disturb any existing road or roads now on said lands nor roads leading to or from any well or well location without first providing adequate and suitable roads in lieu thereof, and the lessee shall fully indemnify any such lessee for any injury or damages resulting from his operations hereunder in such amount so fixed as above provided.

(b) Upon the further consideration and payment of $10.00 and payment of the filing and recording fees, the lessee may upon Sixty (60) days notice in writing to the lessor, surrender the lease or any legal subdivision thereof, providing all obligation under the terms of this lease at the date of the relinquishment have been fully complied with by the lessee. Providing, however, that if no developments have taken place during the life of the lease, such lease may be surrendered upon the payment of required fees.

(c) Such methods of mining shall be used as shall extract the greatest amount of valuable metals possible, and all lode mining operations on those premises shall be subject to the supervision of the State Inspector of Mines and such supervision as the Commissioner of Public Lands through his office may care to designate.

(d) During the proper hours and at all times during the continuance of this lease the lessor or its representatives shall be authorized to go through any of the shafts, openings or workings on the premises, and to examine, inspect and survey the same and to make extracts of all books and weigh sheets which show in any way the output from the land.

(e) It is expressly understood and agreed that the mining rights and privileges hereunder shall extend to and include only gold, silver, copper, platinum, zinc, lead, iron, cobalt, tungsten and associated metals of whatever kind, and that no rights or privileges respecting oil or gas or any kind or character of other mineral or minerals are granted or intended to be granted by this lease. The lessee shall promptly notify the lessor of the discovery of any valuable substance, mineral, oil or gas upon the leased premises.

(f) This lease is granted for the purposes as herein set forth only under such title as the State of Wyoming now holds in and to the gold, silver, copper, platinum, zinc, lead, iron, cobalt, tungsten and associated metals that may be found in or under the above-described lands, and if subsequently divested of same, no liability shall be incurred by virtue of this lease for any loss or damage to the lessee; nor shall any claim for refund of rents or royalties theretofore paid, be made by said lessee, its successors or assigns.

In the event the possession or occupancy of said leased premises is denied or contested, the lessor does not undertake to place said lessee in possession by process of law or otherwise, or to defend him in such occupancy.

(g) This lease shall include only the right and privilege of lode mining, but if the lessee shall discover any placer deposit of value or mineral not herein leased in or under said lands he shall immediately report the same to the lessor and shall then have a preferential right for a period of thirty (30) days following the date of discovery to lease said placer deposit or mineral upon such terms, conditions, and royalty as may be fairly fixed by the State Board of Land Commissioners, providing the land had not been leased prior to such time for that specific mineral.

SEC. 5. - THE LESSOR EXPRESSLY RESERVES:

DISPOSITION OF SURFACE. - The right to lease, grant rights of way, sell or otherwise dispose of the surface of the land embraced within this lease under existing laws or laws hereafter enacted, or in accordance with the Rules of the Board of Land Commissioners, insofar as the surface is not necessary for the use of the lessee in the extraction and removal of the lode material therein.

SEC. 6. - APPRAISAL OF IMPROVEMENTS. - Upon the expiration of this lease, or earlier termination thereof pursuant to surrender or forfeiture, or if such land be leased to another other than the owner of the improvements thereon, the lessee agrees that the improvements shall be disposed of pursuant to Section 804, Chapter 91, Wyoming Revised Statutes of 1931, and amendments thereto.

SEC. 7. - FORFEITURE CLAUSE. - In the event that the lessee shall have procured this lease through fraud, misrepresentation or deceit, then and in that event this agreement, at the option of the lessor, shall cease and terminate and shall become ipso facto null and void, and all improvements upon said land or premises under the terms of this lease shall forfeit to and become the property of the State of Wyoming. In the event that the lessee shall fail to make payments of rentals and royalties as herein provided, or make default in the performance or observance of any of the terms, covenants and stipulations hereof, or of the general regulations promulgated by the Board of Land Commissioners and in force on the date hereof, the lessor shall serve notice of such failure or default, either by personal service or by registered mail upon the lessee, and if such failure or default continues for a period of

Form "L" 1937
Amended Dec.1,1938

thirty (30) days after the service of such notice, then and in that event the lessor may, at its option, declare a forfeiture and cancel this lease, whereupon all rights and privileges obtained by the lessee hereunder shall terminate and cease and the lessor may re-enter and take possession of said premises or any part thereof; but these provisions shall not be construed to prevent the exercise by the lessor of any legal or equitable remedy which the lessor might otherwise have. A waiver of any particular cause of forfeiture shall not prevent the cancelation and forfeiture of this lease for any other cause of forfeiture, or for the same cause occurring at any other time.

SEC 8. - HEIRS AND SUCCESSORS IN INTEREST. - It is further agreed that each obligation hereunder shall extend to and be binding upon, and every benefit hereof shall inure to the heirs, executors, administrators, successors of, or assigns of the respective parties hereto.

SEC. 9. - This lease is issued by virtue of and under the authority conferred by Chapter 91, Wyoming Revised Statutes, 1931, and valid amendments thereto, and subject to the laws of the State of Wyoming, and is accepted by the lessee subject thereto.

IN WITNESS WHEREOF, the said lessor has caused these presents to be signed by the Governor, President of the Board of Land Commissioners, countersigned by the Commissioner of Public Lands, Secretary of the Board of Land Commissioners, and the seal of the Board to be affixed and the lessee has caused these presents to be signed and sealed in the manner following:

LESSOR: STATE OF WYOMING, acting by and through its Board of Land Commissioners.

Signed on the 20 day of February 1948

Gertrude Johnson
Witness

By: Lester C. Hunt
Governor - President, Board of Land Commissioners.

Countersigned:

Patricia Leslie
Witness

Commissioner of Public Lands - Secretary
DEPUTY

LESSEE:

Stanford Griffin
Witness

Harry E. Ferguson

LESSEE

Virginia M Griffin
Witness

Patrick W Dinneen Jr.

APPROVED AS TO FORM AND EXECUTION
21 FEB 1948
NORMAN B. GRAY, Attorney General
By Marion R. Smyser
Assistant Attorney General

Cash Bond of $10.00 on deposit in the Office of the Commissioner of Public Lands.
Form approved by Board: April 8, 9, 1937
Lease and bond approved by Board: DEC 4 1947
Executed lease and bond approved by Attorney General;
EXAMINED: MP

Form "L" 1937
Amended Dec.1,1938

Lease No. 0-5169

ASSIGNMENT (For use by Individual)

Dinneen, Sr.

KNOW ALL MEN BY THESE PRESENTS, That I, ~~We, Harry E. Ferguson and~~ Patrick W. the within named lessee, for and in consideration of the sum of One Dollars ($1.00) to me in hand paid, the receipt of which is hereby acknowledged, do hereby sell, assign, transfer and set over unto COPPER KING MINING COMPANY of Cheyenne, Wyoming, a certain Gold, Silver and Copper lease described as follows:

All Section 36, Township 14 N., Range 70 W., Laramie County

640 acres, more or less

TO HAVE AND TO HOLD unto the said Copper King Mining Company, successors and assigns, subject to the terms and conditions therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 23rd day of July, A.D.19 52.

Witness to Lessee

Patrick W. Dinneen Sr.
Lessee

Harry E. Ferguson

STATE OF Wyoming)
)SS
County of Laramie)

On this 23rd day of July A.D.19 52, before me personally appeared Patrick W. Dinneen Sr. & Harry E. Ferguson to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

WITNESS my hand and seal this 23 day of July, A.D.1952.

My Commission expires: 8/2/53

Notary Public

Assignment approved by Board of Land Commissioners: JUL 24 1952
Assignment recorded in the office of Commissioner of Public Lands August 5, 1952.
(Fee for recording this form of assignment is $1.00. If other terms are desired incorporated in the assignment a special form should be prepared and signed copies forwarded to Commissioner of Public Lands in duplicate, as one copy is retained for the office record).

RECEIVED

1953 FEB 14 AM 11 45

Lease No. 0 169

App. No. 8546 B

GOLD, SILVER AND COPPER LEASE

Description Plate:

ACRES	DESCRIPTION	LEASE SEC.TP.RG.
640	ALL	36 14 70

Lessee ~~Harry E. Ferguson and Patrick W. Dinneen, Sr.~~

~~c/o Harry E. Ferguson~~

Address ~~Box 621, Cheyenne, Wyoming~~

Expires December 15, 1957

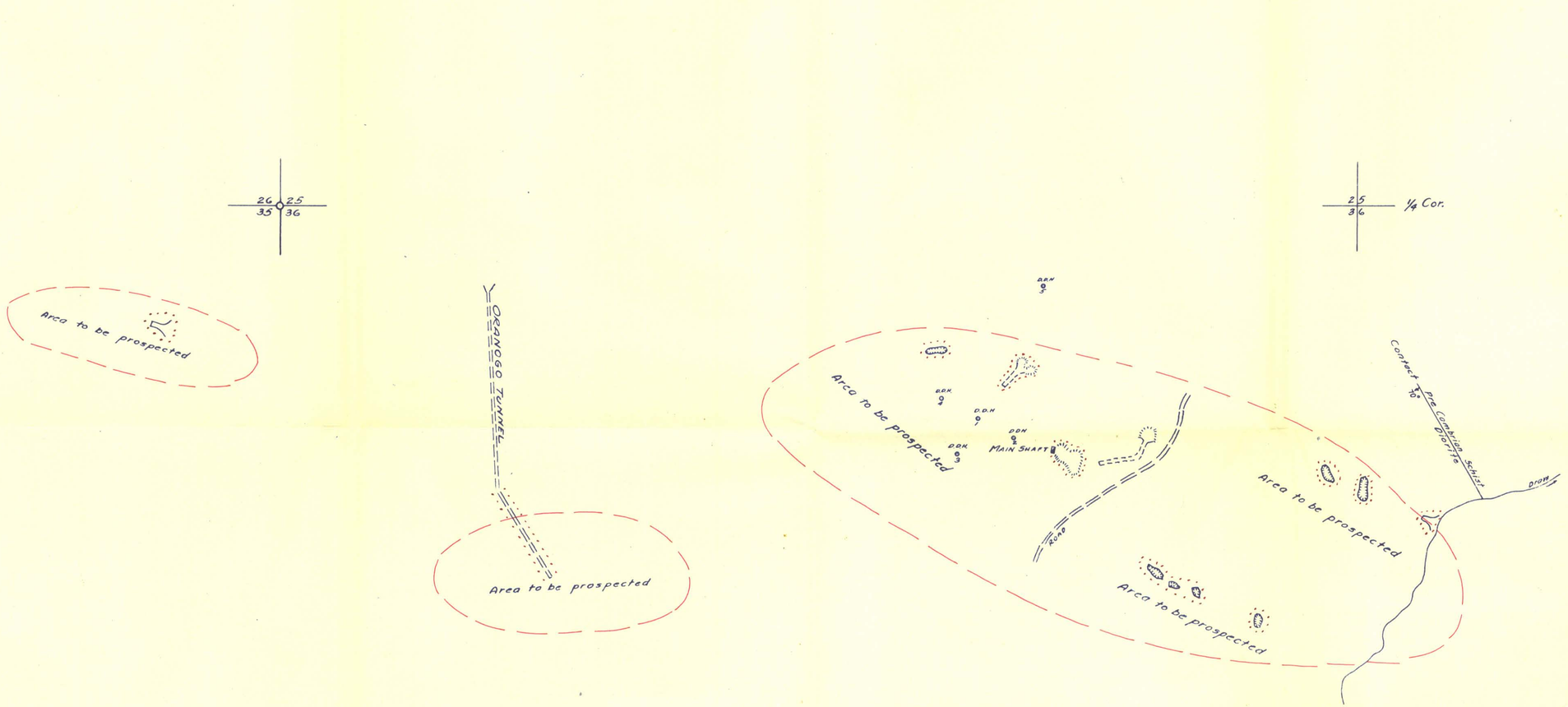
Rental $50.00(before discovery)
$250.00(after discovery)

County Laramie

Fund COMMON SCHOOL

Record of assignments:

1. Copper King Mining Company, ALL LEASE
c/o Byron Hirst,
Boyd Bldg.,
Cheyenne, Wyoming.



MAP
SHOWING
AREAS OF SIMILAR MINERALIZATION
ADJACENT TO

THE COPPER KING MINE

LARAMIE COUNTY, WYO.

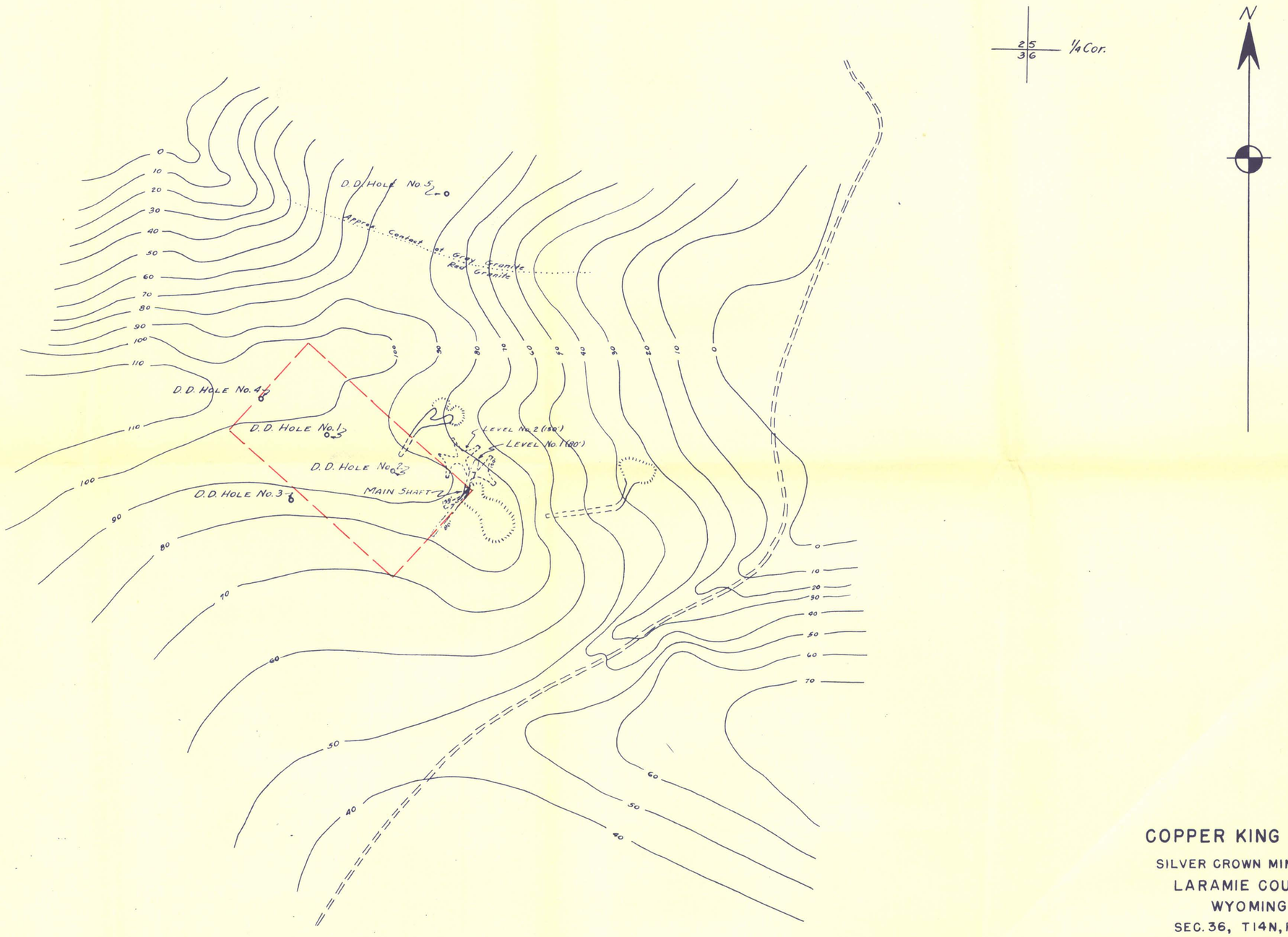
1" = 200' 1-22-51

C.R. BOYLE

INFERRED ORE

MINERALIZATION

MAP 'B'



COPPER KING MINE

SILVER CROWN MIN. DIST.

LARAMIE COUNTY

WYOMING

SEC. 36, T14N, R70W.

1" = 100' 12-12-50

INDICATED ORE

MAP 'A'