UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Terminated ~~(or cancelled)~~ without certification. DMEA No. 1486

This is the official contract file containing all official records of the project. Duplicate material has been removed. The records contained in the files are checked and are arranged in this manner:

Left Side

Certificate of Audit (Final).

Interim Audit(s).

✓ Report of Review.

✓ Termination Notice or Agreement.

Recision Notice.

Assignment of Contract.

✓ Contract Amendments (latest on top).

✓ Contract with all exhibits and annexes.

Owner's Consent to Lien.

✓ Subordination Agreement.

Leases and assignments of leases.

✓ Application and attachments.

Schedule of Collections.

✓ Operator's monthly reports and all attachments (latest on top).

Right Side

✓ Project summary.

✓ Work completed analysis.

All other material is filed in chronological order with correspondence including the following reports as checked:

✓ Final Field Team Report. (Tab)

✓ Operator's Final Report.

✓ Interim Reports.

On-site Exam Report(s). (Tab)

Settlement Sheets.

If additional folders are required because of volume of records, show folder numbers and contents below:

Maps in folder number _____

Operator's Monthly Reports in folder number _____

cw
Reviewer's Initials

7973

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of

J. E. Hall, Owner and Lessee
4650 Harrison Boulevard
Ogden, Utah

pertaining to Exploration Project Contract No. Idm-E162, Docket No. DMA 1486X, including amendment No. 1, for the months of November 1951 and January 1952 inclusive, covering a project for the exploration of copper.

My review included an examination of the Monthly Reports (Forms MF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, consultation with the Government Engineer who visited and examined the project, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the following reasons:

1. Administrative cost to the Government of an audit would be excessive in relation to the value of the contract or estimated amount of possible disallowances.

2. The Monthly Reports were supported by documentary proof of costs incurred under the contract.

3. Major portion of the cost covered Bulldozing $320.00 and Diamond Drilling $2961.00 at rates specified in the contract.

The review disclosed the following facts in regard to the amount paid or to be paid the contractor:

Total cost as billed by contractor	$3531.00
Exceptions	none
Total accepted cost	$3531.00

The contract calls for a 50 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of One thousand seven hundred sixty five and 50/100 Dollars

$1,765.50

is considered valid and proper.

May 26, 1953

C. A. Turner, Auditor

GOVERNMENT COPY

TERMINATION OF EXPLORATION PROJECT CONTRACT BY AGREEMENT
AFTER COMMENCEMENT BUT BEFORE COMPLETION OF THE WORK

It is agreed this 21st day of January, 1953, between the United States of America, acting through the Depatment of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and J. E. Hall, 2539 Jefferson Avenue, Ogden, Utah, hereinafter called the "Operator," parties to that certain Exploration Project Contract I-dm-E 162, Docket No. DMEA- 1486X, dated September 26, 1951, that the said contract shall be and is hereby terminated as of the first date above written.

Any work prosecuted or costs incurred by the Operator after the date first above written shall be for the sole account of the Operator, except for (a) such necessary and reasonable costs and expenses as may be incurred in preserving and disposing of any facilities, buildings, fixtures, equipment, or other items, to the cost of which the Government has contributed and in which the Government has an equity, and (b) the costs of any reports, accounts, and winding-up and settlement actions provided for in the contract.

The undersigned Operator hereby releases and agrees to save harmless the Government from all claims and demands under or arising out of said Exploration Project Contract, except as herein expressly otherwise provided.

Witness the following signatures as of the day and year first above written.

UNITED STATES OF AMERICA

By A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II

J. E. HALL
(Operator)

By

AMENDMENT NO. 1

It is agreed this 10 day of December 1951, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration and J. E. Hall, 4650 Harrison Blvd., Ogden, Utah (address September 26, 1951) 2539 Jefferson Avenue, Ogden, Utah (present address)

each acting in consideration of the agreement of the other to the terms hereinafter set forth, that the Exploration Project Contract Idm-E 162 of September 26, 1951 between the parties hereto be modified and amended as described in Exhibit "F", attached hereto, which, with any maps or drawings attached thereto, is made a part of this agreement. The effective date of this amendment shall be December 1, 1951.

This amendment is made by authority granted the Executive Officer, DMA Field Team, Region II in Order No. 2653 by the Acting Secretary of the Interior.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be obligated to pay, or the percentage of costs which the Government may be obligated to pay, under the provisions of Article 13 of the contract form.

Executed in sextuplicate the day and year first above written.

J. E. Hall
(Operator)
J. E. Hall

By _____

The United States of America

By A. E. Weissenborn
A. E. Weissenborn
Executive Officer, DMEA
Region II

THE JOHN E. HALL REVAIS CREEK COPPER PROPERTY
EXPLORATION PROJECT CONTRACT
THE LUCKY STRIKE CLAIM AND ALICE LOZEAU LEASE

EXHIBIT "F"

Amendment No. 1

Owing to the steep nature of the terrain, thickness of talus, and the limitations of the bulldozer employed, the program as outlined in Stage A, Exhibit A, was not completed. The evidence obtained by the partial completion of Stage A is inconclusive.

Due to the inconclusive evidence obtained in the partial completion of Stage A, Stage B of the contract is completely deleted, and the following substituted:

STAGE B *

Time schedule

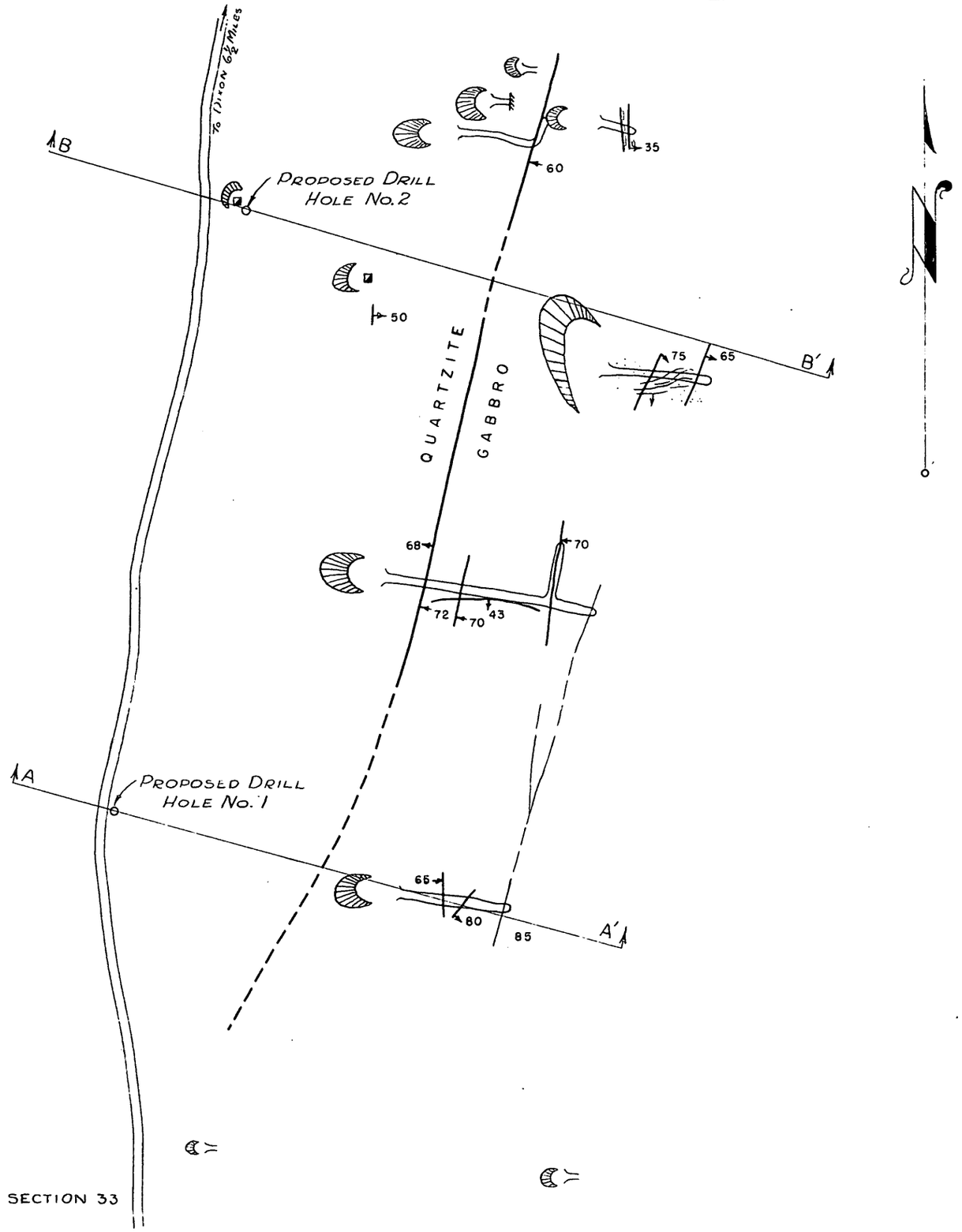
3rd to 6th month	1. To diamond drill 2 holes, the total length of the 2 holes not to exceed 500 feet. (See attached map for location, length, and inclination of proposed drill holes.)

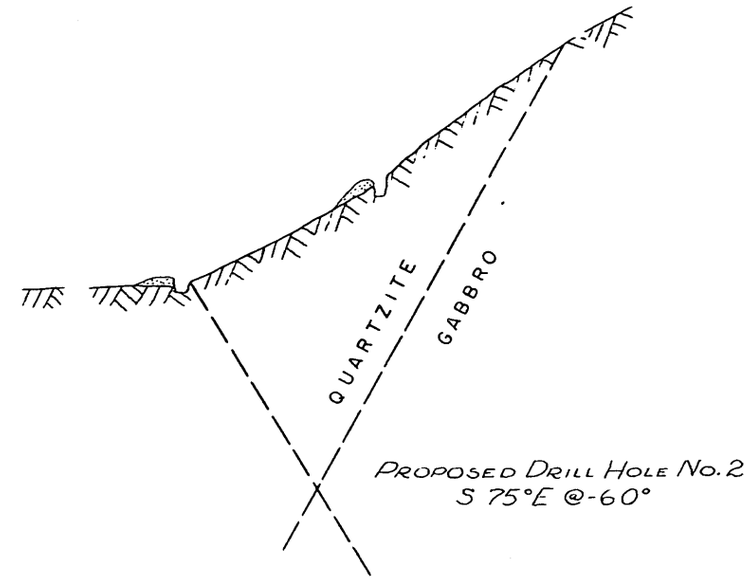
The proposed work and the estimated cost thereof is as follows:

STAGE B

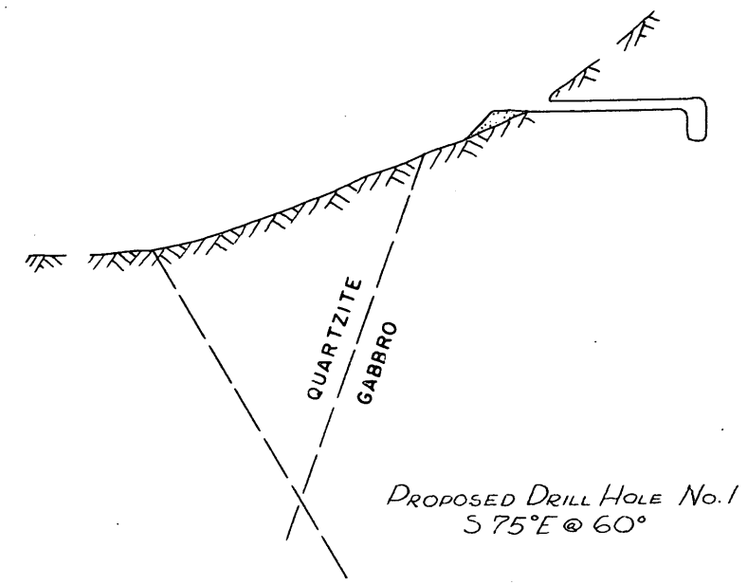
500 feet of diamond drilling at $7.00 per foot (includes supervision, labor, supplies, sampling, and assaying.)	$3,500.00
Subtotal	$3,500.00

*As indicated in Section 4 of the contract, all subcontracts are subject to approval by the Government.





SECTION B-B'



SECTION A-A'

SKETCH MAP AND SECTIONS OF REVAIS CREEK COPPER PROPERTY
SHOWING GEOLOGY AND WORKINGS, AND PROPOSED DIAMOND DRILL PROGRAM
SANDERS COUNTY, MONTANA

EXHIBIT "F"

100 50 0 100 200 300

FROM MAP BY M. W. RANKIN NOV. 1951

APPROVAL

December 26, 1951

Under authority granted by Order No. 2653 of the Acting Secretary of the Interior, approval is hereby given to a subcontract between J. E. Hall (currently of Ogden, Utah), 2539 Jefferson Ave., Ogden, Utah, contracting officer, and Don C. McAllister, Jr., 524 Edison St., Butte, Mont., contractor, described "DIAMOND DRILL CONTRACT" (not dated), as per copy attached to this approval, the work to be performed under Exploration Contract Idm-E162, dated September 26, 1951.

This approval shall not be construed to make the Government a party to the guarantee of a minimum of 400 feet of drilling as stated under the terms of said contract.

This approval shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be obligated to pay, or the percentage of the costs which the Government may be obligated to pay, under the provisions of Article 13 of the contract form.

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

M. E. Volin
Member, DMEA Field Team,
Region II

FILE ID:

Docket No. DTA-1486X
Contract No. Idn-4162
J.S. Hall, Ogden, Utah.

DIAMOND DRILL CONTRACT

I, Don C. McAllister, Jr., of 524 Edison St., Butte, Mont., do hereby enter into the following contract and agreement with J.S. Hall, (currently of Ogden, Utah) to furnish all labor, material and equipment necessary to drill two (2) diamond drill holes on the Novais creek corner property on the Alice Lorena lease and Lucky Strike claims under the exploration contract now covering such diamond drilling and outlined on maps, drawings and records attached hereto and specifically made a part of this agreement and contract.

The undersigned Don C. McAllister, Jr., agrees to start drilling operations between Jan. 1, 1952 and Jan. 15, 1952 and to complete the drilling of the two holes on or before April 1, 1952.

The said Don C. McAllister, Jr., also agrees to drill the said two holes to a depth of 300 feet each, or more if directed, it being agreed that the said Don C. McAllister, Jr., is guaranteed under the terms of this contract a minimum total of 600 feet of drilling.

In acceptance of this contract J.S. Hall agrees to pay to Don C. McAllister, Jr., for the said drilling operations a rate not to exceed $7.00 per feet.

Signed Don McAllister Jr
Contractor

Signed J.S. Hall
Contractor By J.H.H.

Docket No. DMA 1486X
Commodity Copper

Idm-E162

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]

It is agreed this 26th day of September, 1951, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and[2] J. E. Hall, Owner and Lessee
4650 Harrison Blvd.
Ogden, Utah

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Montana, County of Sanders described as follows:[3] the Lucky Strike unpatented lode claim (owner of an undivided one half interest) in Sec. 33, T.18N., R.22W., in the unorganized Revais Creek Mining District. The claim is recorded at the County Seat of Sanders County on page 419, Volume #51 of deed records. Also approximately 80 acres leased by the Operator from the heirs of Alice Lozeau, deceased, by lease November 14, 1940, as modified on July 22, 1947, consisting of the with respect to which the Operator represents and undertakes: (See attached sheet for balance of description)

(*a*) That he is the ~~sole~~ part owner, in possession and entitled to possession of the Lucky Strike claim, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: No encumbrances. Subordination agreement of co-owner attached.

(*b*) That he is a lessee, in possession and entitled to possession of the property described above as being leased.

3. *Exploration project.* The Operator, within Thirty (30) days from the date of this contract shall commence work on a project of exploration for[5] copper; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of[6] eighteen (18) months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Any additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro rata share.

6. *Operating equipment.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. As to equipment purchased for the project, the Government will contribute its agreed pro rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* An itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, analytical work, accounting, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in this contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, taxes, or any other indirect costs not expressly allowed by these provisions, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 50 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $10,642.50, which is 50 percent of the agreed estimated total cost of this project, $21,285.00.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

15. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter, shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent for each additional full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the mineral deposit which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

16. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

17. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in sextuplicate the day and year first above written.

J. E. Hall
(Operator)

By

THE UNITED STATES OF AMERICA

By C. Mittendorf

Director, Production Expansion Division
Defense Minerals Administration

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

allotment of Indian lands No. 2890 to Alice Loseau, deceased, and further described as follows: All of the SE¼ SW¼ and SW¼ SE¼, Sec. 33, Twp. 18 N., R. 22W, and the NE¼ NW¼ and NW¼ NE¼, Sec. 4, Twp. 17 N., R. 22W., excepting the portions of the Slow Poke, Lucky Strike, Eagle, Dixon and Trade Dollar mining claims, contained within the boundaries of the above described tract.

The John E. Hall Revais Creek Copper Property
Exploration Project Contract
The Lucky Strike Claim and Alice Lozeau Lease.

Exhibit "A"

Exploration Project.

Time Schedule Month		
		Stage "A"*
1st	1.	To bulldoze 400 feet of trench along the strike of the copper vein in the southwest corner of the Lucky Strike claim and southward in the leased property as shown on the attached map. The vein is to be sampled where necessary.
		Stage "B"*
1st to 6th	1.	To erect the necessary buildings if shaft sinking is warranted and approved by the Government.
	2.	To sink a 150 foot, 65° inclined shaft, 5' x 6' in the clear, on the vein. This work to be undertaken only after completion of Stage "A" to the satisfaction of the Government. The exact location of the shaft will be determined by the Operator upon the basis of the results of the trenching, subject to approval by the Government.
	*	As indicated in Section 4 of the contract, all sub-contracts are subject to approval by the Government.

The proposed work and the estimated cost thereof is as follows:

Stage "A"

1.	Bulldoze 400 feet of trench. Forty hours at $12.00 per hour (Includes all costs)	$ 480.00
2.	Supervision, engineering, sampling and assaying	405.00
	Sub-total	$ 885.00

Stage "B"

1.	For cost of buildings see "Fixtures and Improvements"	
2.	To sink 150 feet of 65° inclined shaft @ $88.00 per foot (Includes all costs not specified elsewhere)	$13,200.00
	Sub-total	$13,200.00

Summary of Estimated Expenditures

1.	Stage "A" including supervision and engineering.	$ 885.00
2.	Stage "B"	13,200.00
3.	Fixtures and Improvements	2,100.00
4.	Operating Equipment.	
	To be purchased	150.00
	To be rented	2,700.00
5.	Supervision and engineering	2,250.00
	Total	$21,285.00
	Government participation is 50 percent or	$10,642.50

Fixtures and Improvements.

1.	One frame build ing with dirt floor to serve as compressor house, blacksmith shop and tool shed, 10' x 20'	$ 700.00
2.	One frame building with wooden floor, partitioned for mine office and change room, 10' x 20'	800.00
3.	One frame building with cement base for small hoist, 10' x 10'.	600.00
	Sub-total	$2,100.00

Operating Equipment.

Equipment to be purchased.

1.	One mine car, 12½ cu. ft. (used)	$ 50.00
2.	Miscellaneous small tools	100.00
	Sub-total	$ 150.00

To be rented.

1.	One gasoline compressor, 315 cfm, $350.00/month	$1,750.00
2.	Two jackhammers (I.R.60#), $45.00/month each	450.00
3.	One sinker pump (Cameron #9), $25.00/month	125.00
4.	One air hoist (Tugger 2000#), $75.00/month	375.00
	Sub-total	$2,700.00

Labor and Supervision.

1. The following labor will be employed at the rates shown:

   1--Working foreman @ $1.75/hour
   2--Miners and timbermen @ $1.50/hour
   1--Mucker @ $1.50/hour

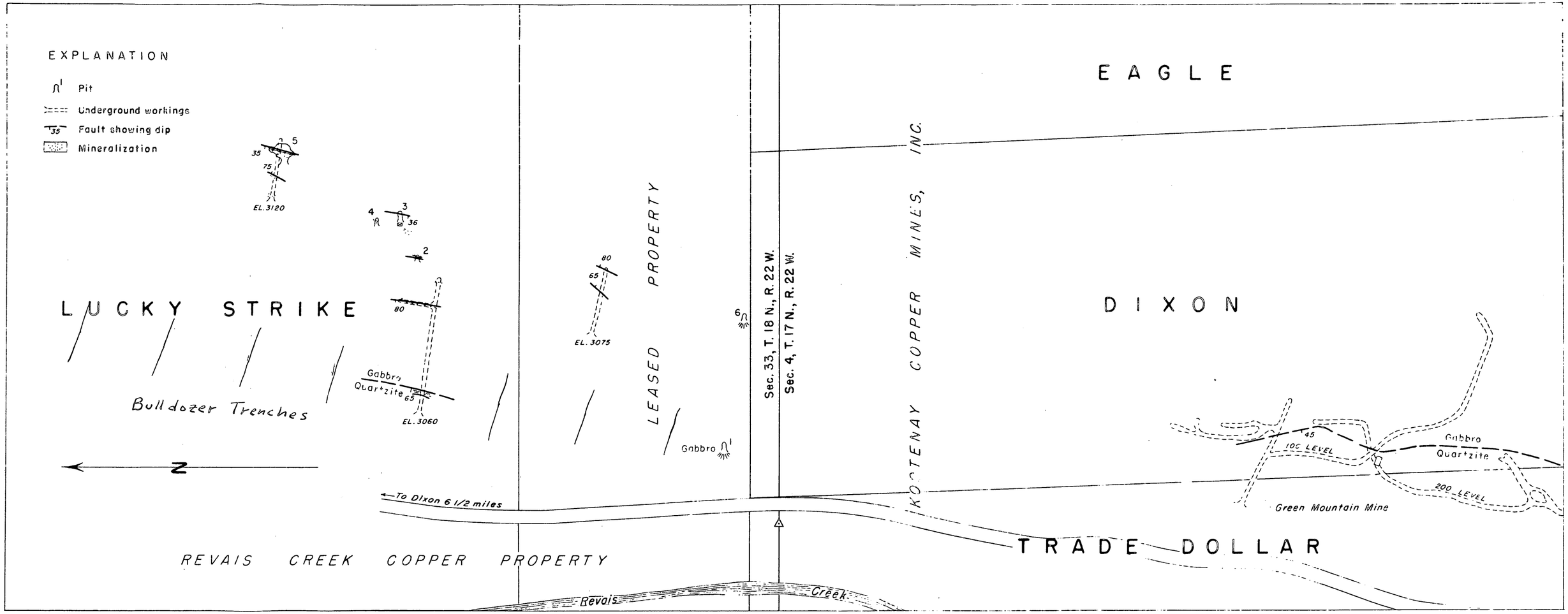
2. Mining engineer and Supt.* @ $450.00/month — $2,250.00

   Sub-total — $2,250.00

   * The mining engineer will work full time and will be in charge of the work, do the engineering and sampling and keep what few accounts that there are.

Rehabilitation and Repairs.

None



SKETCH MAP OF WORKINGS OF REVAIS CREEK COPPER PROPERTY, SANDERS COUNTY, MONTANA

SHOWING RELATION TO ADJACENT GREEN MOUNTAIN MINE

100 0 100 200 300 400 Feet

Datum assumed as 3000 feet at station (△) on section line

ADVANCE or TRIAL COPY
Not Yet Approved for Official Release Subject to Further Revision, Your Comments Solicited
U. S. GEOLOGICAL SURVEY

SUBORDINATION AGREEMENTS

Know all men by these presents:

Whereas the undersigned is the owner of an undivided one-half interest in the Lucky Strike unpatented lode mining claim located in Sec. 33, T. 18N., R. 22W, Sanders County, State of Montana; and

Whereas J. E. Hall, the owner of the other undivided one-half interest in said claim proposes to enter into an Exploration Project Contract with the United States of America providing for Government assistance in the conduct of exploration for minerals upon the said claim;

Now, therefore, the undersigned does by these presents subordinate all of his right, title and interest in and to said claim to all rights of the United States which shall arise as a result of such Exploration Project Contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 23 day of Oct, 1951

Mary Mel M. Lashcraft

MF-200
(June 1951)

Docket No. DMA - 1486X
Commodity Copper & ~~Platinum~~

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] John E. Hall
4650 Harrison Boulevard
Ogden, Utah

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Montana, County of Sanders described as follows: [3] Mineral Lease Cont. 1-29-Ind-3909 Allot 2890 Alice Loreau, Dec. Prob 239-39-3-27-39. SE¼ SW¼ and SW¼ SE¼ sec. 33 Twp. 18 N. R. 22 W., and NE¼ NW¼ and NW¼ NE¼, Sec. 4 Twp. 17 N., R. 22 W., and all of the Lucky Strike (see Exhibit A)

with respect to which the Operator represents and undertakes: [4]

(*a*) ~~That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached.~~

(*b*) That he is a lessee, in possession and entitled to possession, and the subordination agreement of the lessor is attached.

3. *Exploration project.* The Operator, within Thirty (30) days from the date of this contract shall commence work on a project of exploration for [5] Copper; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] 6 operating months* from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Any additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro rata share.

6. *Operating equipment.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. As to equipment purchased for the project, the Government will contribute its agreed pro rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

* 18 calendar months

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, and other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* An itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, analytical work, accounting, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in this contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, taxes, or any other indirect costs not expressly allowed by these provisions, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 50 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $11,990.00, which is 50 percent of the agreed estimated total cost of this project, $23,980.00.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

15. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter, shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent for each additional full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the mineral deposit which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

16. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

17. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in sextuplicate the day and year first above written.

John E. Hall
(Operator)

By

THE UNITED STATES OF AMERICA

By

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

DMA Docket No. 1486X
Commodity: Copper

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "A"

The objective of this exploration is to determine the continuity and grade along the strike of the copper vein in the southeast corner of the Lucky Strike Claim, and, if the vein has sufficient grade and width, sink a 65° inclined shaft 150 feet along the vein to determine depth extension.

Exploration Project
Time Schedule

Month		
		Step I
1st	1.	Bulldoze 400 feet of trench as marked on map, and sample vein.
		Step II
2nd, 3rd, 4th, 5th, 6th	1.	Sink 65° inclined shaft 150 feet along vein. Position to be determined after bulldozing.

The work to be done and the costs are as follows:

Step I

1.	Bulldoze 400 feet of trench. 40 hours at $12.00/hour (Includes all costs.)	$ 480.00
2.	Supervision, engineering, sampling and assaying	405.00
	Total	$ 885.00

Step II

To be carried out only if Step I is successful.

1.	Sink 65° inclined shaft 150 feet at $100.00/foot (Includes all costs not specified elsewhere.)	15,000.00
2.	Operating equipment to be purchased or rented	2,125.00
3.	Buildings to be constructed	3,300.00
4.	Supervision and engineering	2,670.00
	Total	$23,095.00
	Grand Total	$23,980.00

[illegible]
Commodity: Copper

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "B"

Buildings to be constructed

Compressor house	8' x 10'	$500.00
Hoist house	12' x 15'	700.00
Blacksmith and tool shed	10' x 12'	600.00
Bunkhouse	30' x 15'	900.00
Mine office	10' x 12'	600.00
		$3,300.00

DMA Docket No. 14,96X
Commodity: Copper

Exploration Project Contract, Nevada Creek

Copper Property, Sanders County, Montana

EXHIBIT "C"

Operating Equipment

To be purchased	Costs
1 mine car, 12½ cu. ft. (used)	$50.00
miscellaneous small tools	100.00
Total...$	150.00

To be rented

	Rental per Month	Number of Months	Total Rental
1 compressor, 210 cfm., gas	$250.00	5	$1,250.00
1 Jackhammer (I.R. 60#)	45.00	5	225.00
1 water pump (Cameron #9)	25.00	5	125.00
1 air hoist (Tugger 2000#)	75.00	5	375.00
			$1,975.00

To be furnished

None

Total $2,125.00

DMA Docket No. 1436X
Commodity: Copper

Exploration Project Contract, Bernis Creek

Copper Property, Sanders County, Montana

EXHIBIT "D"

Labor and Supervision

2 miners	$1.50/hour
1 mucker	1.50/hour
compressor man-timber framer	320.00/month
Foreman	320.00/month
Consulting Engineer (½ time)	500.00/month

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "B"

None

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 1486X

Date received 6-1-51

Participation

U. S. DEPARTMENT OF INTERIOR
DEFENSE MINERALS ADMINISTRATION
So. 150 Howard Street
SPOKANE, WASHINGTON

J. E. HALL
4650 Harrison
OGDEN, UTAH

Name and address of applicant

Date May 15, 1951

FILL IN THIS BLOCK

Date of application May 15, 1951

Estimated cost

Mineral or metal Copper, Platnum & Manganese

Percentage of Government participation

Location of mine Revris Creek Dixon

Sanders County, Montana

Date of filing MF-100 May 15, 1951

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Individual

*2. If a partnership, state names and addresses of partners. None

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. None

*4. Describe the mining and general business experience of (a) the applicant, and (b) the person or persons who will manage the project. Mason W. Rankin, Consulting Eng. Harvail G. Beck, Foreman, J.E. Hall, Gen. Mgr.

*5. Are you the owner or the lessee of the property? Lessee. (See Page 3, Par. 7)

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. No claims.

7. If lessee, attach a copy of the lease and state if it is in good standing. Copy of Lease enclosed.

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

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. N ot operating.

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? $25,000.00.

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

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. See Page 3, Par. 3.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

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

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

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads. See Page 3, Par. 5.

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

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

15. State in detail how the ore could be shipped and how and where milled. Shipped to Anaconda Smelter Anaconda, Mont.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations. Page 3, Par. 2.
    (*b*) State briefly the known history and production of adjoining and neighboring properties. Page 1.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations. See Geologist Rankin's Report attached.

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

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

*18. Ore or mineral reserves: (If property is or has been operating.) Not operating.
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data. No record
    (*c*) Give estimated tonnage and grade of each class of ore reserves. No figures

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.
Geologist's Report attached covering this District.

THE EXPLORATION

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

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. 100ft incline 18mos. 150 Ft Cross Cut.
    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data. Bulletin #236 Rankin Geologist Report and Government Map enclosed.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. 3 MINERS $250 MO 6 MO - 4500.00
    (*b*) Supervisors, by numbers and positions, with salaries of each. (Engineer 6 MO $1000) Foreman 500 MO 6 M - 4000.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings. NONE 8500.00
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings. NONE 4000
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each. 2 CARS, HOIST HOUSE, ENGINE COMPRESSOR, DRILLS - CABLE $1,500.00
    (*f*) Cost of rental for equipment which the operator proposes to rent. CAT - 5 DAYS @ 50.00 250.00
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work. NONE
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each. $1600
    (*i*) Cost of power, water, utilities, and any other items not provided for above. GAS POWDER STEEL - 240 MO 6 MO 1400.00

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

CERTIFICATION

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

(Name of company)	By John E. Hall (Signature of authorized official)
(Date)	Lessee (Title)

5/15/51

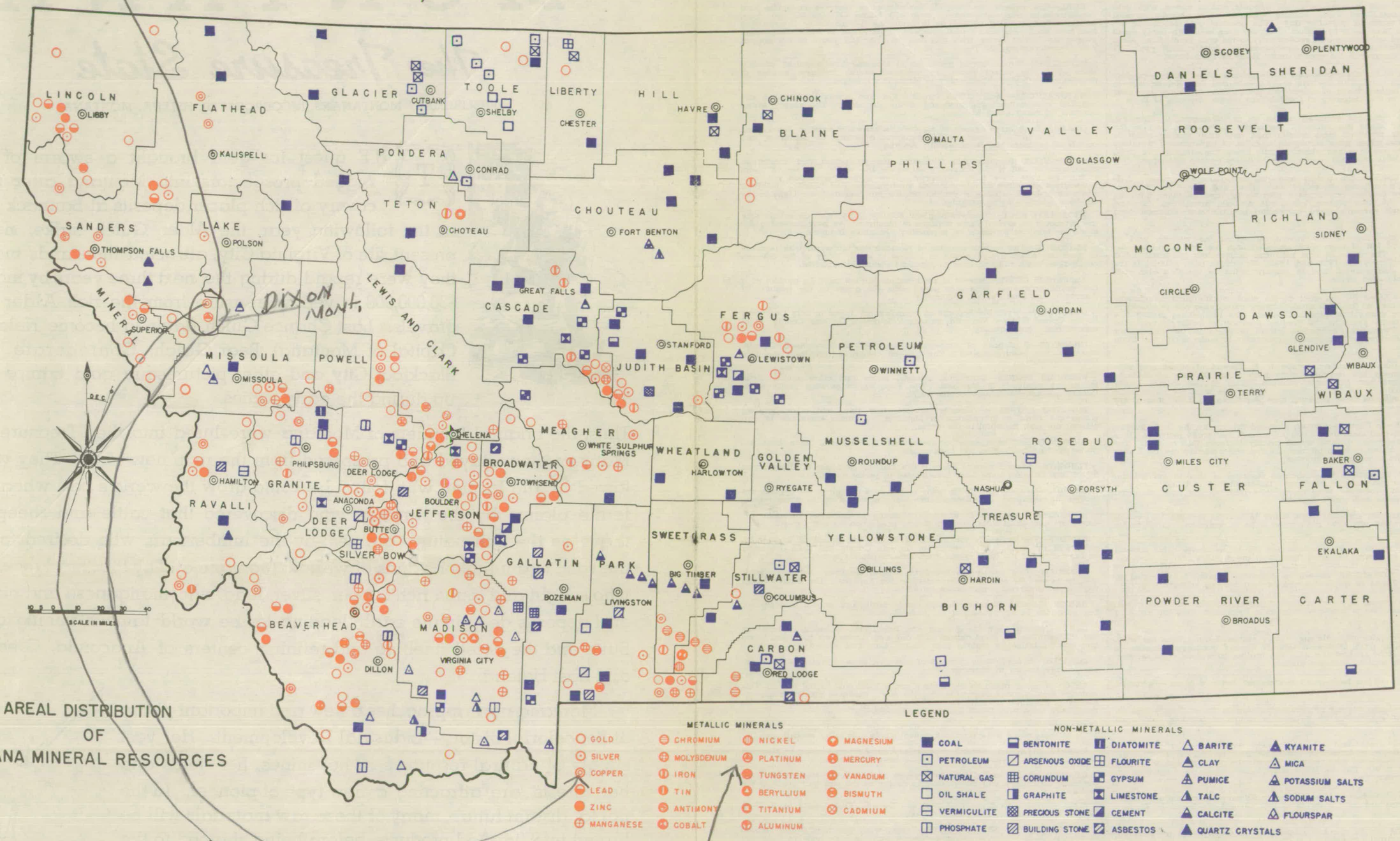
Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

Platinum
Copper

Joe Hall
(Indian Lease)
Dixon Mont.

dmw 1486 x



AREAL DISTRIBUTION
OF
MONTANA MINERAL RESOURCES

Metallic Minerals

GOLD—Native gold is found in placer deposits and is mined with gold pans, sluice boxes, and large floating dredges which handle several thousand cubic yards of gravel a day. The greatest gold production for many years has been as a by-product of copper ores, although many small and medium-sized gold mines add substantially to the total production. Gold production in Montana amounts to several million dollars each year. A fortune in gold remains in the gravel under Helena's Main street.

SILVER—Most of the silver produced in Montana is mined as a by-product of copper or lead ores. The smelters at Anaconda and East Helena recover several million dollars worth of silver each year. The rich silver ore near the surface led to the discovery of the fabulous copper deposits of Butte.

COPPER—The Butte hill produces almost all of the copper in Montana, although smaller mines are scattered throughout the western part of the state. Butte has produced more wealth than any other mining camp in the world. These mines have thousands of miles of underground workings and much of the ore is mined almost a mile below the surface. To date, Montana mines have produced nearly 13,000,000,000 pounds of copper.

LEAD—Lead deposits are widely scattered throughout the western half of Montana, in most cases associated with silver and zinc. The development of selective flotation has made it possible to separate these minerals from the crude ore, thus making low grade deposits commercial. Galena (lead sulfide) and cerussite (lead carbonate) are the most common lead minerals.

ZINC—Many zinc deposits are known throughout the western part of Montana, although few of them were exploited until the war stimulated demands for zinc. The value of zinc produced in Montana increased 1,000 per cent between the years 1938 and 1942. Sphalerite (zinc sulfide) is the only important zinc mineral, and is usually found in complex ores containing lead, gold, and silver.

MANGANESE—About 70 per cent of the total metallurgical manganese ore and 75 per cent of the high grade battery manganese ore produced in the United States comes from Montana mines. The Philipsburg district has been noted for many years as the greatest producer of battery manganese in the world. Pyrolusite (manganese oxide) is found in the Philipsburg area while rhodochrosite (manganese carbonate) is common in the Butte district.

CHROMIUM—Diamond drilling by the U. S. Bureau of Mines and subsequent development has indicated more than 5,000,000 tons of chromite ore in Sweetgrass and Stillwater counties. This is the largest single reserve of chromite in the United States. During the war, the government built two large mills on these deposits, capable of treating 3,000 tons of ore a day.

MOLYBDENUM—In Cascade County, diamond drilling by the U. S. Bureau of Mines has indicated more than 3,000,000 tons of low grade material. It is probable that additional drilling would greatly increase this reserve. The deposit could be mined by open pit methods, but will probably require higher metal prices to be successfully exploited.

IRON—Recent exploration has indicated reserves of iron in several deposits throughout the state of Montana. Great interest is being shown in the possibility of producing ferro-alloys, thus utilizing the iron, chromite, tungsten, mamganese and nickel deposits.

TIN—Cassiterite (tin ore) has been found in several streams in western Montana, but the deposits have not proven to be of commercial grade under present conditions.

ANTIMONY—Stibnite is the most common ore of antimony. This mineral has been found in several localities throughout the western part of Montana.

NICKEL AND COBALT—A deposit in Stillwater County is estimated to contain 2,500,000 tons of low grade nickel-cobalt bearing sulfides.

PLATINUM—Platinum is found in several placer deposits and lode mines, but at the present time is produced only as a by-product from the smelting of copper ores.

TUNGSTEN—Tungsten minerals are widely scattered throughout the western counties. One gold dredge in Granite County produces scheelite (a tungsten ore) as a by-product of gold. The Jardine mine near Gardiner produces tungsten as well as gold and arsenic.

BERYLLIUM—Beryl has been found in Montana, but to date no commercial deposits are known.

TITANIUM—A large deposit of titaniferous iron in Teton County has attracted considerable attention as a possible source of titanium oxide and metallic titanium.

ALUMINUM—A great deal of metallurgical work in recent years has proven the feasibility of extracting aluminum from certain clays. One deposit in central Montana was recently investigated and proved to be exceptionally high grade, but not large enough to support an aluminium industry at the present time.

MAGNESIUM—One source of magnesium is dolomite, a calcium-magnesium carbonate. Almost unlimited reserves of this mineral are found in Western Montana.

MERCURY—The ore of mercury (cinnabar) has been found in Montana, but not in commercial amounts.

Non-Metallic Minerals

COAL—The eastern counties of Montana have reserves of lignite and sub-bituminous coal estimated at over 400 billion (400,000,000,000) tons. Research is now being carried on to determine the feasibility of extracting fuel from coal. Montana's coal reserves, if converted to liquid fuel, could supply the United States with gasoline for over 400 years at the present rate of consumption.

PETROLEUM—Production of petroleum in Montana has increased steadily since 1916. In recent years, an intensive search for new sources of petroleum has added considerably to Montana's reserves.

NATURAL GAS—Most of the larger cities and towns in Montana are supplied with natural gas produced within the state. The supply seems assured for many years to come.

OIL SHALE—A large deposit of oil shale is known to exist in Beaverhead County, Montana. Interest in oil shale as a source of petroleum and petroleum products has been recently revived.

VERMICULITE—Montana has pioneered the production and fabrication of vermiculite and is the largest producer in the world. In recent years many new uses have been developed. New home construction will consume great quantities of this material for insulation and plaster. Montana has several large deposits of vermiculite, but Mt. Zonolite, near Libby is the only one which is being exploited.

PHOSPHATE ROCK—Reserves of about 400,000,000 tons of phosphate rock are estimated in several large deposits in Montana. An ever-increasing demand for fertilizer forecasts an expanding phosphate industry.

BENTONITE—The eastern counties of Montana are underlain with reserves of bentonite which are estimated in billions of tons. Many of the deposits occur along main railroad lines and could be cheaply exploited.

ARSENIOUS OXIDE—Arsenic is produced at Jardine as a by-product of a low grade gold ore. It is also saved from the gases at the smelters at Anaconda and East Helena, Montana.

CORUNDUM—Workable deposits of corundum are found in only two areas in the United States. Montana corundum, found in Gallatin County, is of exceptionally good quality.

GRAPHITE—A deposit of high-quality graphite in Beaverhead County, Montana, has been exploited. The product compares well with the best Ceylon graphite.

PRECIOUS STONES—Sapphires, garnets, agate and other semi-precious stones are produced in Montana. The Yogo sapphires from Judith Basin County are famous throughout the world.

BUILDING STONES — Granite, marble, travertine, and other building stones are found in abundance in Montana. Montana travertine is considered the most beautiful in the world.

DIATOMITE—At least two occurrences of this material have been reported, but no production has been made.

FLUORITE—Several fluorite deposits are known. Deposits in Mineral and Silver Bow Counties have been investigated in recent years.

GYPSUM—Deposits containing many million tons of high grade gypsum are located in Montana. Two deposits are being exploited at the present time.

LIMESTONE—Limestone is found in Montana in unlimited amounts. A lime plant near Elliston has been in steady production for many years.

CEMENT—The materials for producing cement are found in several localities in the state. An operation in Gallatin County has been producing Portland Cement for many years from natural cement rock.

ASBESTOS—This mineral is found in several localities, but more work will be needed to determine the extent of the deposits. The Karst's Kamp deposit has attracted considerable attention.

BARITE—Several deposits of high grade barite are known in Montana, but none are being worked at the present time.

CLAY—Common clay for making tile, brick, etc., is being exploited in several localities. A large deposit of kaolin near Lewistown has been tested and found suitable for making high-quality china and whiteware.

PUMICITE—Several large deposits of pumicite, none of which is being exploited, are known in Montana.

TALC—Montana produces the highest grade block talc in the world. This material was in great demand during the war. Montana also produces appreciable tonnages of ceramic and cosmetic talcs. Many new uses for these talcs have been found during recent years.

CALCITE—Large veins of massive calcite occur in south central Montana. Some of these veins have produced optical grade calcite for special uses.

QUARTZ CRYSTALS—Several deposits of quartz crystals occur in Montana but only a few crystals of optical grade have been found.

KYANITE—A deposit of kyanite crystals is known in Madison County, but more exploration will be required to determine the size and grade of the deposit.

MICA—Several occurrences of mica are known. One deposit in Madison County has produced acceptable material.

POTASSIUM AND SODIUM SALTS—Recent work has indicated a deposit of over 5,000,000 tons of sodium-potassium salts in lake beds in Chouteau County.

NAEGELE PRINTING CO., HELENA, MONT.

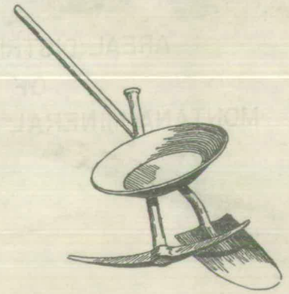
MONTANA

The Treasure State

PUBLISHED BY MONTANANS, INCORPORATED, HELENA, MONTANA

THE quest for gold brought a swarm of hardy, rugged prospectors into Montana after the discovery of rich placer deposits at Bannack in 1862. In the following year, the Alder Gulch strike, near the present site of Virginia City, attracted thousands more and they were repaid during the next three years by more than $30,000,000 in yellow treasure from the rich Alder Gulch gravels. Last Chance Gulch (later to become Helena, the Capital of Montana), Bear Gulch, Confederate Gulch, Blackfoot City and other picturesque gold camps sprang up during the early sixties.

Thus, the original founders of Montana were lured into the "Treasure State." Many of them stayed and prospered from the rich, new land. They were followed by the farmer, who found he could grow the world's best wheat on the fertile plains; by the rancher, who discovered that cattle and sheep would thrive on the rich natural grasses; by the lumberman, who desired to exploit the vast, virgin timber stands of western Montana and by the "hard rock" miners who sought and found rich copper, silver, lead, zinc, manganese and other mineral deposits deep in the earth, leading to the world famous mining camp of Butte and the noted smelting and refining centers of Anaconda, Great Falls, and East Helena.



Montana now approaches a new and important phase of her colorful history—Industrial Development. Her vast supply of natural resources in her mines, her fields and her forests, are attracting a new type of pioneer. In the not far distant future, many of these raw materials will be turned into finished products before being shipped to the eastern and western markets.

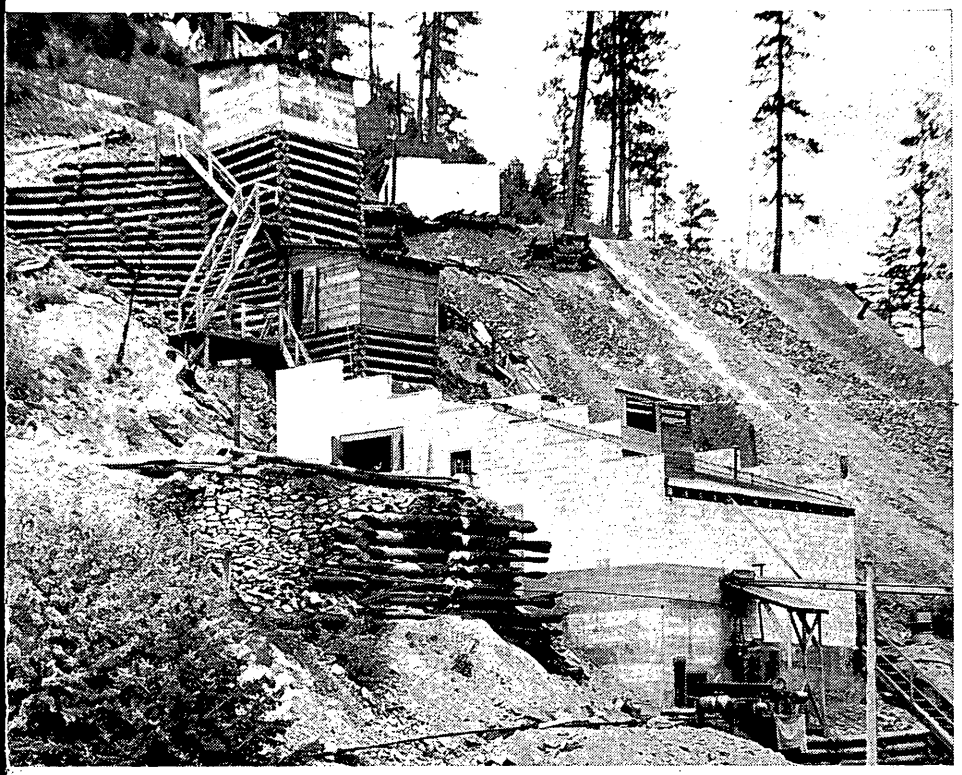
Map Reproduced From Original By U. S. Bureau of Mi

dma 1486X

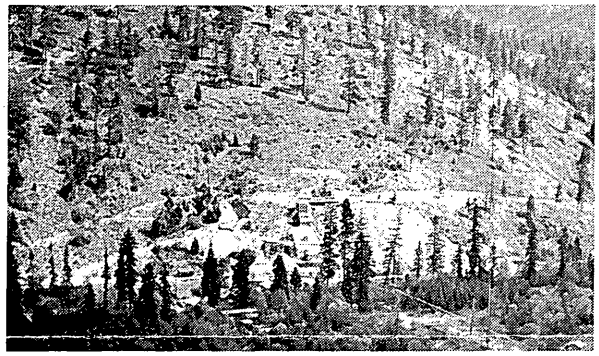
PROSPECTUS

GREEN MOUNTAIN MINING COMPANY

OCTOBER 15, 1946



● Closeup of new modern plant showing mill and ore bins.



● General view of plant and property, including Revais creek.

The Green Mountain Mining Company is making a public offering of 70,000 shares of par value 25c non-assessable common stock at a price of 62½c per share.

These securities have not been registered with the Securities Exchange Commission, because such securities are believed to be exempt from registration, but such exemption, if available, does not indicate that the securities have been either approved or disapproved by the Commission, or that the Commission has considered the accuracy or completeness of the statements herein.

COMPANY

The Green Mountain Mining Company was incorporated under the laws of the State of Montana, July 5, 1930. Its capitalization is 700,000 shares of common, non-assessable stock. There is issued and outstanding 629,326 shares. This company, controls and operates the Drake Mine, consisting of the Trade Dollar, Eagle and Dixon Lode Claims, under a lease and bond purchase contract, has a lease and option to purchase the Mayflower Lode Claim, and there is pending subject to approval by the Department of Interior, Office of Indian Affairs, a mining lease on 123 acres adjoining the above claims on the south.

GREEN MOUNTAIN MINING COMPANY

Principal Office
At Mine, 6½ Miles S. W.
Dixon, Montana

Business and Transfer Office
425 Edith St., Missoula, Montana

Washington Office
416-417 Empire State Bldg.,
Spokane 8, Washington

PURPOSE

The purpose of this issue is to secure the sum of $35,000 to enable the company to sink and open a new level on the ore body on which the company is now mining profitably above the No. 2 level. It is contemplated to do further diamond drilling to the south and at greater depth, and to continue development on both levels. This orebody was indicated by a previous diamond drilling project in 1943, and it was on the basis of this that a loan of $20,000 was granted by the Reconstruction Finance Corporation. This loan is being repaid at the rate of 20% of the net smelter return. The official data of this diamond drill project is available for inspection at the company office.

LOCATION

The mining property lies in Section 4, T 17 N of R 22 W, Sanders County, Montana. Revais Creek traverses the claims along which a fair gravel road leads from U. S. 10A, 3 miles to the north. The ores and concentrates are trucked down grade 6½ miles to Dixon and loaded on gondolas for shipment to the smelter at Anaconda, 170 miles distant. There is usually light snowfall in this district and mining operations continue the year around.

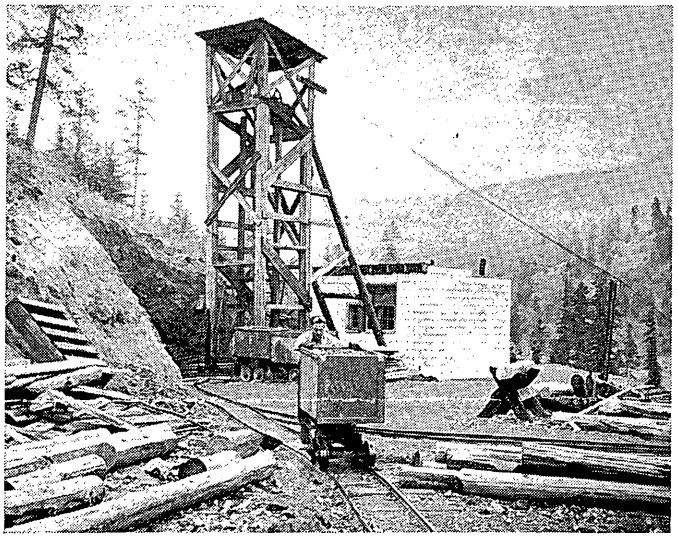
PRESENT OPERATION

The accompanying pictures show the new mill and plant completed this spring after a fire which destroyed the mill, hoisthouse, and burned the timber out of the shaft down 75 feet. Shipment of ore to the smelter was resumed in June, 1946, since which there has been shipped two cars per month, or a total of eight car loads to the smelter. The present operation of the Company is conducted through a shaft 133½ feet deep to the No. 2 level. Stoping operations are carried on above this level on an oreshoot 175 feet in length, varying from 6 inches to 14 feet in width and averaging 2½ feet. Present production with a total crew of eight men averages three tons of sorted crude ore and 15 tons of milling ore from which one ton of concentrates is made per day. The crude ore averages 10% copper, 0.38 ounce gold, 0.08 ounce platinum and its net smelter return value averages $38.50 per ton. The mill concentrates contain 45% copper, 0.59 ounces gold, 0.90 ounces platinum, 2.5 ounces silver and including premiums, the net smelter returns are approimately $200.00 per ton. Production by this company from the No. 2 level is approimately $100,000 to date, while that of previous operators from above the No. 1 level is given as approximately $75,000.

GEOLOGY AND ORE OCCURRENCE

A north-south igneous dike traverses through these claims and it is on the hanging wall contact with the overlying quartzites where the orebodies are found. This dike is traceable on the surface for over 8000 feet, and is thought to be continuous for some ten miles through this district. The dike itself, throughout its width of 230 feet, carries a small amount of copper, gold and silver and values of the platinum group metals varying from a trace to 0.10 ounce per ton. The dike, a basic gabbro-diorite, is favorable for replacement by the acidic copper ores, and most of the ore is found on the under or dike side. Strike faults along the contact have opened fissures through which the orebodies have been formed.

● Tramming ore hoisted from mine shaft. Head frame and hoist house in back.



GREEN MOUNTAIN MINING COMPANY

Incorporated in the STATE OF MONTANA, July 5, 1930.

Capitalization 700,000 Shares Common-Stock

Par Value 25¢ Non-assessable

OFFICERS

TONY CRISWELL, President
J. L. RICHARDS, Vice-President
EARL ELSTONE, Secretary-Treasurer.
HERBERT C. FISHER, Assistant Secretary-Treasurer

DIRECTORS

TONY CRISWELL
J. L. RICHARDS
EARL F. ELSTONE
JOHN KARLBERG
H. A. CHAMBERS

ORE

The ore consists of malachite, cuprite and chrysocolla, which are oxidized copper minerals, chalco-pyrite, bornite, covellite and chalcocite, which are sulfide copper minerals. All these, where found, carry good values in gold and the platinum group metals, platinum, palladium and irridium. At the present time, platinum is the only one of these for which payment is made by the smelter. However a jig concentrate is made in the mill which is to be shipped to a precious metal refinery, where payment is made for all the above metals.

VEINS

There are two known veins in the mine. The main producer is the faulted section along the contact of the dike and the argillaceous quartzites and into favorable openings in the dyke itself. The flat vein strikes at an acute angle with the contact vein and dips toward it, making an intersection along the vein for 330 feet before passing out into the walls. The intersection of these veins is usually the source of high grade ore bodies. Above the water level the ores are oxidized, while immediately below the water level the sulfide enrichment begins. The No. 2 level is apparently in the top portion of this zone of enrichment. Another level opened below this present working level should make available considerable ore.

STOCK OFFERING

The company now offers to the public through its officers and members 70,000 shares of common non-assessable stock at the price of 62½c per share for the sum of $43,750.00. This stock is to be offered first by a mailed prospectus only and the estimated expenses of offering and marketing is $2,500.00 and the per unit cost is estimated to be approximately 3½c per share. However, in case the solicitation by mail is not fully successful, then, solicitation may be made personally by officers and members of the Green Mountain Mining Co. to the public for the sale of the balance of the 70,000 shares. In this case, the estimated cost of distribution and marketing is 12½c per unit.

The aggregate cost of offering and marketing is expected to be from a minimum of $2,500.00 to a maximum og $8,750.00.

These securities were previously offered at a price of 25c and since this offering was made without compliance with the regulations of the Securities and Exchange Commission, it was necessary for the company to make an offer of recission, to repurchase this stock and extinguish the resulting civil liabilities. This was done by letter mailed to stockholders. All offers of stock at 25c were discontinued by May 13, 1946. Since that time, the company has operated at a profit, as shown in the attached statutory statement, and it is on the basis of this profitable operation that the offering has been advanced from 25c to 62½c per share.

The net proceeds of the issue after the deduction of the expenses of marketing and distribution will be used for the further exploration, equipment and development of the property.

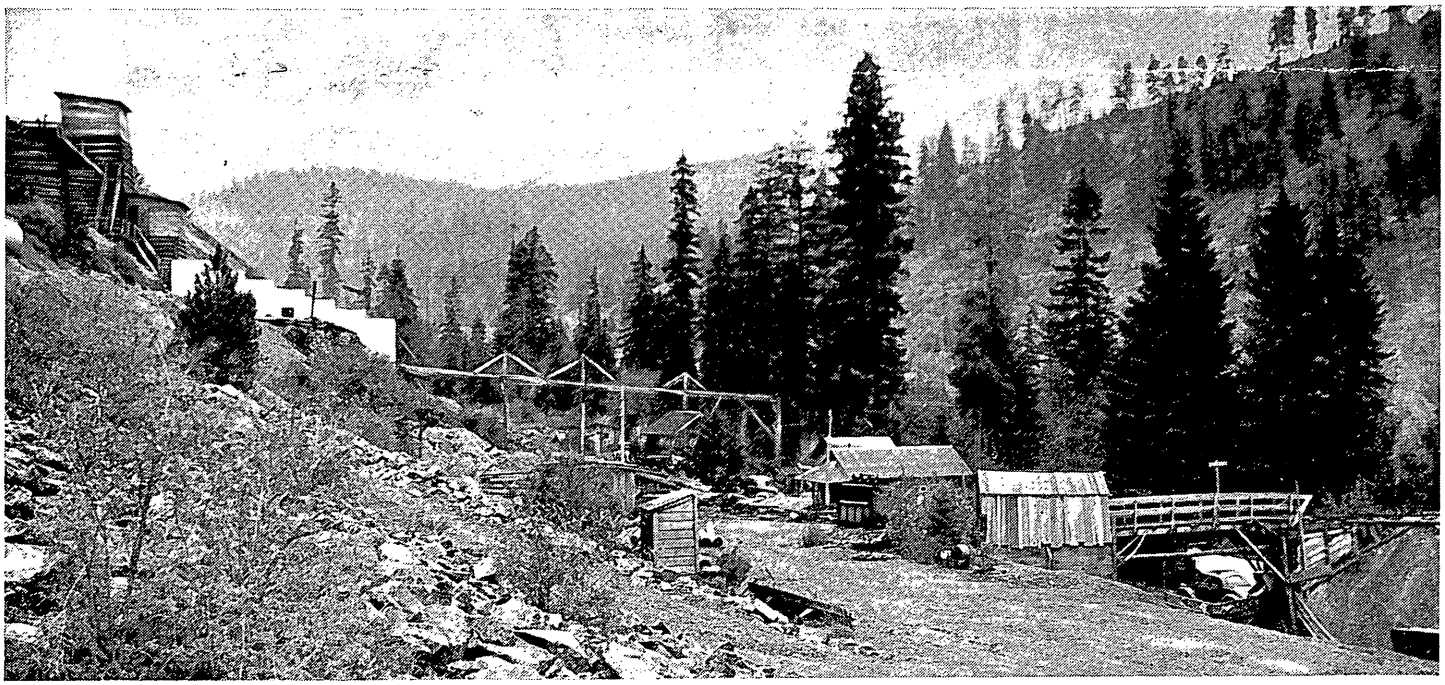
CONCLUSION

The directors of this corporation have great faith in the possibilities of this mining venture. The ore bodies disclosed so far have proven to be of commercial size and grade so as to be commercially profitable under present economic conditions. With the deeper development proposed, sufficient orebodies should be disclosed to make this a profitable investment for its stockholders.

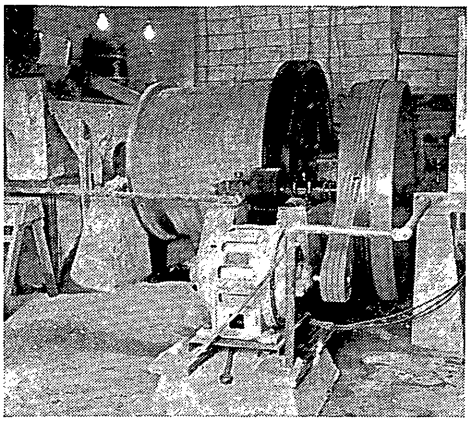
The stock is offered to the public on a speculative basis. The statements herein by the management are alone to be considered, for no other statements are authorized.

The attached statutory statement is made a part of this prospectus.

GREEN MOUNTAIN MINING COMPANY
Missoula, Montana



MISSOULIAN



● Ball mill grinding ore in mill.

In addition to the primary ore contained in these veins, there is found an enrichment of these copper minerals by the leaching of the copper above and its redeposition below, as high grade bodies of ore. The company's workings are in the upper portion of this enriched zone. This zone is expected to be at least 150 feet in depth, although no workings or drill holes have penetrated below this enriched zone so far. While the ore widths vary greatly from small seams to large high grade veins of 14 feet in width, the average width is approximately 2½ feet. On approximately 800 feet of drifts along this contact, approximately 70% of this footage has been in commercial ore. There is reason to believe that extensions of these drifts both to the north and south will continue to open ore in the same proportions.

It is planned to continue this development both north and south, to sink the shaft to open a new level on the ore drilled below, and to explore additional locations by diamond drilling.

EQUIPMENT

The property is equipped with a modern flotation mill of 50 tons per 24 hour capacity, powered by a diesel-electric generator, and a smaller emergency standby unit, a two machine compressor plant, gas engine power hoist of 500 feet depth capacity.

Mine equipment consists of mucking machine, slusher and scraper, air hoist, diamond drill, drifter, jackhammer, two stopers, six ore cars, electric exhaust fan and electric automatic motor pumps for mine dewatering.

Surface equipment consists of shop and tools, grinders, post drill, forge, acetylene welder, Ford ½-ton pickup, 2½-ton G. M. C. truck, electric wood saw, electric automatic motor pump for water supply and miscellaneous tools.

Buildings are office, two shops, orebins, hoisthouse, pumphouse, mill and five small residence cabins.

The above is owned by the company, except the 50 KW Diesel-Generator set which is rented at a price of $75.00 per month.

DIRECTORATE AND MANAGEMENT

Tony Criswell, a resident of Missoula, Montana for the past 15 years is General Agent for the Paul Revere Life Insurance Co., and the Massachusetts Protective Association for the State of Montana.

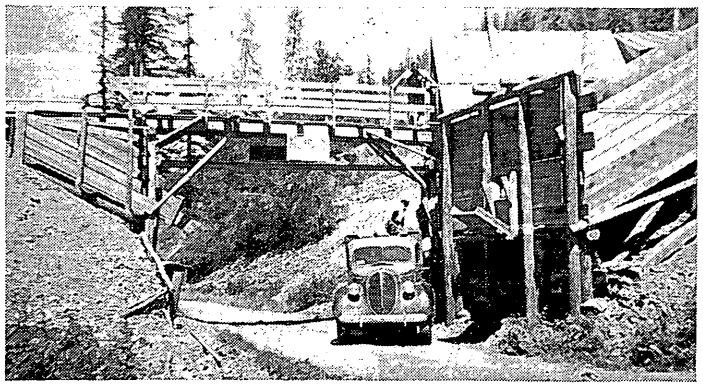
J. L. Richards is a retired physician and surgeon, having practiced in Montana for many years, residing in Polson, Montana.

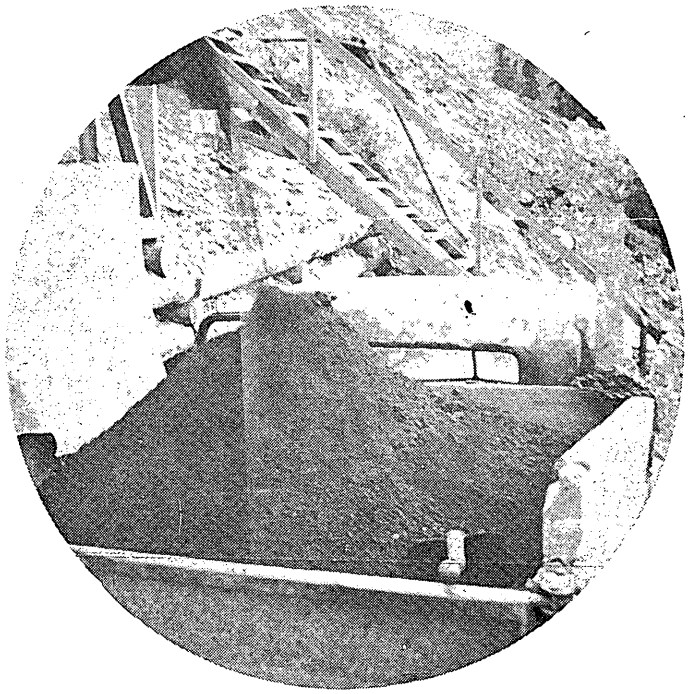
Harold A. Chambers is a retired business man and saw-mill operator, residing in Hamilton, Montana.

John Karlberg is a retired buliding contractor residing in Missoula, Montana.

Earl F. Elstone is a graduate mining engineer and geologist, and has had 20 years of experience in all phases of the mining game from a practical miner on up. He has been associated with mining interests in Alaska, Mexico, the Coeur d'Alenes and in Montana. Elstone is general manager of the company operations and resides in Missoula, Montana.

John B. Hopkins, a graduate mining engineer and geologist, with 15 years of experience as operator and engineer and geologist both with private companies, for the Bureau of Mines during the war and operating properties of his own, has been consulting geologist. He has recently been hired to act in the capacity of general superintendent of the company operations. He is a resident of Missoula, Montana.





● Above. Loading mill concentrates.

● Left. Loading crude sorted ore for direct shipment to the smelter at Anaconda.

dmx 1486X

Dwight.

John E. Hall
4650 Harrison
Ogden, Utah
May 15, 1951
Loan Application
Application for Aid For An Exploration Project Pursuant To Mineral Order 5 Under Defense Production Act 1950.

U. S. Department of Interior
Defense Minerals Administration
South 150 Howard Street
Spokane, Washington

Gentlemen:

I wish to file this application with your office for a Loan for Government Assistance in developing new ore for defense production.

HISTORY

The mining claims on which I hold a mining Lease on Allotted Indian Lands is known as Revais Creek Mining District, near Dixon, Sanders County, Montana. This property was first discovered in 1910 by the Drake Brothers, who worked this property until about 1930. From 1930 to 1937 this property was operated by various Lessees. The writer, J. E. Hall and his brother, A. B. Hall, leased this property from the Drake Brothers Estate (Mrs. Mabel Ashcraft) under date of May 15, 1937. It was then known as the Dixon Mine and consisted of three mining claims, Trade Dollar, Dixon and Eagle. These three mining claims were leased by J. E. Hall and brother and operated under this Lease for about eight months, from July 7th, 1937 to November 15th, 1937. We shipped six car loads of Ore to Anaconda Copper Mining Company, Anaconda, Montana.

I have a definite record of sample lot, car number and complete smelter returns from settlement sheets. The average car was fifty tons, dried weight 45½ tons copper 14.14%, silver 1.8%, gold and platnum .196%. This ore averaged $23.80 a ton or $863.79 per car load. After paying mining expenses, trucking, smelter charge and incidental overhead cost, we made a net profit of $17.00 per ton or a total profit on the six cars shipped of $3,578.92.

All this information can be vouched for through the records, our books and by referring to smelter settlement sheets from the smelter. My brother and I sold our Lease on the Drake property to a Mr. Earl F. Elstone, who incorporated under the name of Green Mountain Mining Co.

The following year upon advice of an ACM Geologist and several expert mining men, I acquired a Lease of approximately eighteen acres of land adjoining Old Dixon Mine or property then known as the Green Mountain Mining Company on the North. Later I acquired two claims adjoining the Eagle and Lucky Strike on the East and two claims adjoining the Trade Dollar property on the West and North.

This is approximately eighty acres in the center of Revais Mining Creek District. My Lease completely surrounds the Green Mountain Copper Mine on three sides East, West and North.

I am enclosing herewith, for your information, War Materials Report #236. This to give you a quite complete history by the Bureau of Mines by the Federal Geological Survey, which is authentic and reliable. You will please note in this circular, Page 3, that the Bureau of Mines diamond drilled in two places within about 500 feet of the property I now have leased and found ore in both diamond drill holes.

If you will note the map on Page 4, you will see that this property is very near the leased property held by J. E. Hall and indications point that better ore is to be found to the N orth of Green Mountain property, which has been worked in recent years. I am told by good authority that the Green Mountain Mining Company has produced over $300,000.00 worth of ore since I leased this property to the Green Mountain people in 1937. Smelter returns from settlement shee ts may be obtained from the Anaconda Smelter.

As far back as May 26th, 1915, I have a record showing that sample lot #3192, car #40256, a gross weight of 66000 pounds brought $1,449.09, running 15.80 in copper. In #8 1917 sample, lot #17247, car #32750, with a gross weight of 42,000 pounds brought $1,450.77, showing 21.70 copper and was worth $76.06 a ton when copper was only about .08 or .09 a pound. These records you can check through the ACM Company, Washoe Sampler Smelter, Anaconda, Montana.

So the record indicates that for the last thirty-six years, this property adjoining my Lease has been a steady, consistent producer, having produced upward of a half million dollars worth of ore and this is just adjoining my leased property.

I am enclosing herewith a map of this mining district showing the property as described herein and giving the location relative to producing property in this district.

Also I own an undivided one half interest in an unbounded mining claim, known as the Lucky Strike, which was the original discovered claim in this district. It is the apex of this entire area.

I am also enclosing herewith a Geologist Report on the property immediately adjoining the J. E. Hall Lease. This Report is made by Mr. Mason W. Rankin, who for yea rs was one of the head men with the American Smelter & Refining Company. If you will notice paragraph 3 on Page 4 and also paragraph 2 on Page 6, you will see that this Report is very favorable to the leased property which I now have.

I am also enclosing a Prospectus of the Green Mountain Mining Company just for your information. I am sure it will give you some enlightenment in connection with arriving at a decision regarding the future possibilities of the district.

Up to this time I have only worked in a very limited way, as finances would permit. I have one tunnel on this Leased property, directly North of the Dixon claim and about 150 feet East of the Highway, as you can locate on the map. This has been done on development work each year since I have had the Lease. At the face of this tunnel, we sank a 15 foot shaft last year. We have a small vain of ore in the bottom of this shaft, which runs about 11% copper. This would indicate that we have a small ore shoot here, which crops up all along the dike through the Dixon leased land, the Lucky Strike and all along the entire area.

The Lease for 80 acres is described as:

> Mineral Lease Cont. I-29 - Ind - 3909
> allot. 2890 Alice Lozeau Dec.
> Prob. 239-39, 3-27-39;
> Together with modification consisting of approximately 80 acres in Section 33 Twp - 18 No. Range 22 West & Section 4 Twp 17 N o. Range 22 West excepting portions of Slow Poke, Lucky Strike, Eagle, Dixon and Trade Dollar Mining claims, contained within the boundaries of the above described allotments, which is designated on the attached map marked Hall.

Also under this Lease the Lucky Strike Mining claim will be included with the eighty acre Lease, of which J. E. Hall owns an undivided half interest, as recorded in the Records of Sanders County, Montana September 20, 1949, Volumn 51 of Deeds & Records of Sanders County, Montana on Page 419.

Man power is obtainable in this vicinity because most of the people in this section are prospectors and have worked in the mines in Butte, Montana, and nearby Idaho mining district. The property is located six and one half miles south and west of Dixon, Montana, a station on the main line of the North Pacific Railway. It is on a gravelled highway and a down-grade from the property to the Railroad loading yard.

There is an abundance of timber on the Government land on this property. There is also an abundance of water available in Revais Creek, which runs through the property.

The overall management of the development of this property will be under the direct supervision of Mason W. Rankin, Geologist from Helena, Montana, who will act as Consulting Engineer. Mr. Harvail Beck of Ogden, Utah, will be in charge of mining operations. J. E. Hall of Dixon, Montana, will supervise all work and operations. Mr. Rankin is well known in mining circles and was Consulting

Geologist for the American Smelting & Refining Company until he opened his own office at Helena, Montana. Mr. Beck has followed mining for twenty years, has acted as shift boss and foreman in Eureka, Utah, and was foreman at the Triumph Mine (property working 300 men) near Ketchum, Idaho. J. E. Hall has had experience in mining and operating mines in Colorado, Utah and Wyoming and was a former Lease holder of the Dixon Mine or Green Mountain Mine in 1937.

The approximate 80 acres covered by this Lease belongs to Indians and is under the immediate supervision of the U. S. Department of Interior Office of Indian Affairs. A copy of the Lease may be secured from the Superintendent of Indian Affairs at the Flat Head Agency, Dixon, Montana. This Lease to J. E. Hall is for a period of fifteen years beginning June 18th, 1947, with an option of renewal for a like number of years.

You will note that the property described in War Materials Report 236 and Mason W. Rankin's Geology Report is now called the Green Mountain Mining Company, as outlined in the attached prospectus circular.

This property was formerly leased by J. E. Hall and was operated for four months during 1937, July 7th to November 15th, with a net profit to Halls of approximately $3,578.92 during this period.

I am attaching herewith a copy of settlement Smelter Return Sheets for that period. The development work done on the Green Mountain Mining Company at that time was through the old discovery tunnel on the Trade Dollar claim, which is approximately only 300 feet South of the land now leased from the Government by J. E. Hall.

This loan is being sought for the sole purpose of searching for new ores and development of property under Government supervision.

I am enclosing herewith the circular #236, the map, the prospectus, the Geologist's Report by M. W. Rankin and respectfully request that upon completion of your perusal of these documents, they be returned to the writer for his files and for future use. I can furnish you with any information that you require or request and I respectfully request that you give this your immediate attention, due to the time element involved. I will gladly forward you any additional information or data that you need, when ever it becomes necessary.

Very truly yours,

J. E. Hall

J. E. Hall
4650 Har rison
Ogden, Utah

JEH:bl
Encls.

dmr 1486 X

UNITED STATES DEPARTMENT OF THE INTERIOR
Harold L. Ickes, Secretary

BUREAU OF MINES
R. R. Sayers, Director

War Minerals Report 236

GREEN MOUNTAIN COPPER MINE
SANDERS COUNTY, MONT.

Copper, Platinum

WASHINGTON: 1944

This report is intended for limited distribution among officials of the United States Government
The information contained therein should not be made available to unauthorized persons.

The War Minerals Reports of the Bureau of Mines are issued by the United States Department of the Interior to give official expression to the conclusions reached on various investigations relating to domestic minerals. These reports are based upon the field work of the Bureau of Mines and upon data made available to the Department from other sources. The primary purpose of these reports is to provide essential information to the war agencies of the United States Government and to assist owners and operators of mining properties in the production of minerals vital to the prosecution of the war.

WAR MINERALS REPORT
UNITED STATES DEPARTMENT OF THE INTERIOR - BUREAU OF MINES

W.M.R. 236 - Copper, platinum September 1944

GREEN MOUNTAIN COPPER MINE
Sanders County, Mont.

SUMMARY

The Bureau of Mines examined the Green Mountain mine in the fall of 1942 and began diamond drilling in July 1943. Two holes were drilled: one proved the downward extension of the contact vein 75 feet below the No. 2 level, and the other determined that the fault and contact joined to the south of the present workings. This information enabled the operators to arrange for continued production at the mine.

INTRODUCTION

The Green Mountain mine was referred to the Bureau of Mines in August 1942 by Earl F. Elstone, manager of the Green Mountain Mining Co. He stated that the producing vein of the mine was faulted and requested aid of the Bureau.

An engineer[1] of the Bureau of Mines made a preliminary examination in August 1942, and a more detailed study was made in September 1942.

R. D. Sample, geologist of the Federal Geological Survey, mapped the geology of the mine in November and submitted a report[2] on the property in December 1942. The Bureau and the Geological Survey jointly decided that the mine merited further exploration.

On July 1, 1943, the Bureau started a diamond drilling project and completed it the following September.

The mine is in a rugged, mountainous area in the gulch of Revais Creek, 6-1/2 miles south and west of Dixon, Mont., a station on the main line of the Northern Pacific Railroad. It is reached from Dixon by going west 3-1/2 miles on U.S. Highway 10A and south 3 miles on a graveled county road up Revais Creek.

Labor for mining and milling operations formerly was recruited locally. The mine is in an agricultural community, and labor for mining should be available, especially during seasons when agricultural work is slack.

1 John B. Hopkins.
2 Green Mountain Copper (formerly Drake or Dixon) Mine, Revais Creek District, near Dixon, Sanders County, Mont., by Federal Geological Survey, November 1942.

A number of cabins for housing employees are available at the property. There are several stores at Dixon where standard goods can be obtained.

Climate in the area is moderate. Summers are pleasant, winters are not severe, and the water supply is plentiful.

The property is owned by the Drake Estate of Dixon, Mont., and includes three unpatented mining claims.

In 1940, a new flotation mill was installed on the property. As the mill has treated only 2,500 tons of ore, it is still in good condition. An air compressor, hoist, rock drills, mine cars, and a small diamond drill are included in the mine equipment.

HISTORY

The mine was discovered in 1910 by the Drake brothers, who worked the deposit intermittently until 1930, using primitive methods. From 1930 to 1938, the mine was operated by various lessees. In the period 1910 to 1938, 1,278 tons of ore was shipped, with a gross smelter content of 485,339 pounds copper, 1,550 ounces silver, and 322 ounces gold. The average grade was 19 percent copper, 0.25 ounce gold, and 1.2 ounces silver per ton.

The Green Mountain Mining Co. acquired the mine under a lease and bond in May 1938. Since then, it has done considerable underground development and installed a 50-ton flotation concentrator. This company mined and shipped 1,200 tons of high-grade ore to the smelter at Anaconda, Mont., and mined 2,500 tons of low-grade ore, which was treated in the mill and yielded approximately 200 tons of concentrate. According to smelter returns, the 1,400 tons of ore and concentrate averaged 18 percent copper, 0.11 ounce gold, 0.9 ounce silver, and 0.08 ounce platinum per ton.

THE DEPOSIT

Country rock at the Green Mountain mine is quartzite and argillite. This has been intruded by a gabbro dike that strikes north and dips about 45° west. The main vein, a fault fissure, parallels the dike and in places coincides with the contact between the dike and the quartzite. Economic mineralization occurs in a vein 1 to 3 feet wide, where the contact and the fault are together.

Detailed mapping of the mine by the Federal Geological Survey showed that the ore had not been terminated by a fault. Instead, it was found that the ore occurred along a continuous but branching fault system, which accounted for the barren areas, and it was indicated that farther south there might be other ore lenses. Drilling was done, therefore, to test this extension beyond the old workings and to test the ore in the primary zone below the old stopes.

THE ORE

Besides the copper minerals, the ore contains a little gold and some platinum, palladium, and silver. Dollar value of the ore shows the following distribution: copper 78 percent, gold 12 percent, platinum 6 percent, palladium and silver 4 percent.

Malachite and chrysocolla, with small amounts of cuprite and tenorite, are found in the oxide zone. In the zone of secondary enrichment, which is 10 to 20 feet below the bottom of the oxidized zone, chalcocite and chalcopyrite are the principal economic minerals. Chalcopyrite occurs in the primary zone.

MINE WORKINGS

The Green Mountain mine has been developed by several openings. No. 1 adit, which includes about 1,000 feet of drifts and crosscuts, is the main level, and a great part of the production came from above it. This adit also is connected to the surface by a two-compartment vertical shaft, from which the ore skips dump directly into the mill ore bins. No. 2 level, 56 feet below No. 1 adit, has produced ore, also, and consists of 700 feet of drifts and crosscuts.

No. 3 level, developed by a winze 55 feet deep on a 40° incline, includes about 200 feet of drifts and crosscuts 18 feet below No. 2 level.

An intermediate level with 100 feet of drifts has been driven about 30 feet below No. 1 adit.

WORK BY BUREAU OF MINES

Two holes were diamond drilled as shown on figure 1.

Hole 1

Hole 1 was drilled due east 61° to a depth of 175 feet, normal to the vein. The drill penetrated 7 feet of ore.

The combined average of core and sludge for the ore was 12.9 percent copper, trace gold, 1.65 ounces silver, and 0.08 ounce platinum through a true width of 6 feet.

Hole 2

Hole 2 was drilled 150 feet south of hole 1. It was directed due east 67° to a depth of 123 feet. The drill cut 4.2 feet of vein material on the quartzite-gabbro contact.

The top of the contact vein was at 91.8 feet. No core was obtained through the highly mineralized portion of the vein, from 91.8 to 94 feet, and the mineralized material was recovered as sludge. Only a small core recovery was obtained between 94 and 97 feet.

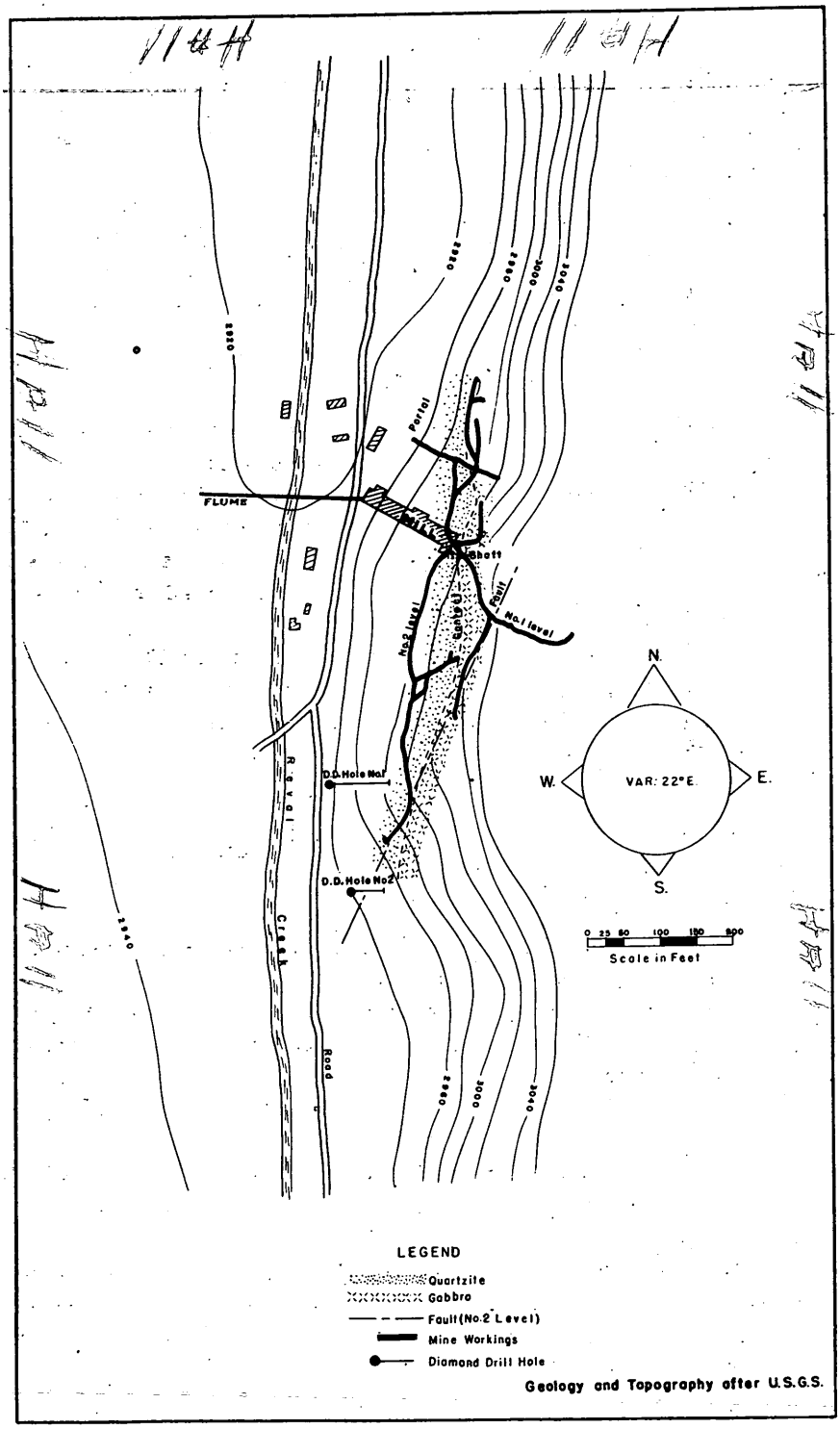


FIG I—DIAMOND DRILL HOLES GREEN MOUNTAIN MINE

An oxidized copper vein was found between 57 and 59.2 feet composed of limonite, chrysocolla and cuprite and assayed 6.1 percent copper, trace of gold, and 0.55 ounce silver for a true width of 1.8 feet.

Over 100 pounds of caved material that assayed 27 percent copper was pumped from the hole during drilling below 97 feet. Although some of this may have been concentrated from the action of the drill, it suggests that some high-grade copper ore may be in the contact vein.

The weighted results from this hole, although not conclusive, tend to show a true width of 2.5 feet assaying 5.6 percent copper, trace of gold, 0.95 ounce silver, and 0.08 ounce platinum.

METALLURGICAL TESTS

Testing was done at the Salt Lake laboratory of the Bureau on a composite sample of core and sludge from hole 2 to determine if the ore could be concentrated effectively.

The assay of the head sample selected from the core and sludge was 3.7 percent copper and 0.08 ounce platinum per ton. Owing to caving and low recovery of core in diamond-drill hole 2, the limited amount of material available for metallurgical tests represented only approximately the true grade of the ore. Standard flotation procedure recovered 92.7 percent copper and over 70 percent of the platinum in a concentrate assaying 43.8 percent copper and 0.71 ounce platinum per ton.

As a modern 50-ton flotation mill is on the property, results very similar to those of the above test undoubtedly can be obtained. The highest-grade samples assayed 0.025 ounce gold per ton, most samples containing but a trace. Silver was found to be in an approximate ratio of 1 ounce to 6 percent copper.

ORE RESERVES

Two new places with good possibilities for producing commercial ore were located by the drilling.

Hole 1 indicates that the ore mined on the No. 3 level extends to a depth of 75 feet on the dip of the vein below the old stopes. According to mine records, the vein was 2 feet wide above the No. 3 level and averaged 19 percent copper and 0.08 ounce platinum per ton over a stope length of 200 feet. At the point intersected in the drill hole, this same vein showed a true width of 6 feet that averaged 12.9 percent copper and 0.08 ounce platinum per ton. The data of the drill hole in connection with those of the stoped ore indicate a block containing approximately 1,900 tons of recoverable ore averaging 17.5 percent copper and 0.08 ounce platinum per ton. There also would be an equal tonnage of inferred ore of similar grade immediately adjacent to the indicated block. These ore tonnages are approximate estimates as the available data are meager.

Hole 2 discovered ore in a new area, but information is insufficient to estimate reserves.

COMPANY OPERATIONS

The present plan advocates drifting south on the 200-foot level from a point 350 feet south of the shaft and exploring the vein about 20 feet above the intersection of hole 2. It is planned to develop the ore body indicated by hole 1 75 feet below the lowest level of the mine after the south ore vein has been opened.

CONCLUSIONS

Development of the primary sulfide zone 75 feet below the present workings, exploration of the zone south of the mine workings, and development of the additional vein found in hole 2 are justified.

Since the two holes were drilled by the Bureau, a crosscut has been driven to the vein found in hole 2 between 57 feet and 59.2 feet. At the point intersected, the vein is 10 inches wide. A drift was driven south on the vein 30 feet to the drill hole, where the vein is 24 inches wide. The ore is soft and crumbly, which accounts for the poor recovery in the drill hole. The vein minerals consist mainly of bornite, sooty chalcocite, and chalcopyrite. The average of 6 samples indicates 18.8 percent copper, 2 ounces silver, and 0.16 ounce gold per ton.

48288

oOo

MF-504
(August 1951)

Budget Bureau No. 42-R1036.2.
Approval Expires 6-30-52.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Contract No. Idm-E 162

Name of Operator J. E. Hall
Docket No. DMA 1486X
Total Contract Amount $ 21,285.00
Government Participation: 50 % Amount, $ 10,642.50
Distribution of Expenditures for Month of January 28, 1952

STRATEGIC AND CRITICAL MINERAL EXPLORATION PROGRAM
OPERATOR'S MONTHLY PROGRESS REPORT

Operators are to submit monthly reports to the designated field representative of the Defense Minerals Administration. Reports are to be submitted in quadruplicate prior to the 15th day of the month following the reporting period.

Narrative.—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered is to be furnished.

Maps.—Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

Cost Accounts.—All applicable parts of this form are to be filled in. This report will form the basis for payments of the Government's participating share of expenses. Audits of accounts may be made from time to time.

CERTIFICATION

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

(Name of Company)

By J. E. Hall
(Signature of Authorized Official)
J.E. Hall

January 28, 1952
(Date)

Operator
(Title)

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

16—64068-3

MONTHLY SUMMARY COST STATEMENT

List as Shown on Exhibits Attached to Contract

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only		
				Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
1. Fixtures and Improvements:						
(*a*) Facilities						
(*b*) Buildings						
(*c*) Fixtures						
2. Operating Equipment:						
(*a*) Purchased[1]						
(*b*) Rented[2]						
(*c*) Furnished by operator						
3. Rehabilitation and Repairs:						
(*a*) Facilities						
(*b*) Buildings						
(*c*) Installations						

MONTHLY SUMMARY COST STATEMENT—Continued

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(d) Fixtures						
4. Labor[3]						
5. Supervision						
6. Supplies						
(a) Timber						
(b) Explosives						
(c) Repair Parts						
(d) Other						
7. Power						
8. Transportation						
9. Insurance						
(a) Fire						
(b) Public Liability						
(c) Workmen's Compensation						
10. Contract Work	1500.00	1787.00	$3287.00			
11. Other (specify)						
Recording		11.50	11.50			
Eng. Report		238.50	238.50			
~~Mobilization Fee (going to and from job - Diamond Drilling)~~	~~500.00~~					
Total	~~2054.00~~ $1554.00	1977.00	~~$4031.00~~ $3531.00			
Deletions						
Adjusted totals						
Totals previously reported	$1554.00		3531.00			
Totals to date	~~$2054.00~~	1977.00	~~$4031.00~~			

[1] Enter amount paid during month toward total purchase price.
[2] Payments for rental of equipment or prorated depreciation on equipment owned by contractor.
[3] Submit copy of the Social Security form filed under the Old Age Insurance system showing complete wage and salary data or furnish copy of payroll sheet giving same data.

NOTE.—Indicate that portion of supervisory, office, and engineering salaries that is chargeable to this project.

FOR GOVERNMENT USE ONLY

Checked by
Entered by
Approved by Horace T. Rew
Amount approved for payment
Remarks

16—64068-3

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF January 28, 1952

(Supply Data Below Applicable Only to Your Operations)

Item	Costs					Progress [4]				
	Wages [1] and salaries	Equipment [2]	Supplies	Other [3]	Total	Unit	Units this month	Units previously reported	Units to date	Units authorized by contract (Exhibit A)
Drifting										
Crosscutting										
Raising										
Shafts										
Winzes						(Feet)				
Drill holes #2		$1554.00				423	222	201	423	500
Overburden										
Rehabilitation and preparation										
Geology and geophysics										
Trenching										
Sampling and assaying										
Roads and trails										
Test pits										
Other (specify)				~~$500.00~~						
Totals		$1554.00		~~$500.00~~	~~$2054.00~~					

[1] Prorate supervisory, engineering, and office salaries in proportion to man-shifts of direct labor.
[2] Prorate charges for equipment that is not exclusively for one type of job (such as compressors) against authorized units of work in each category.
[3] Where entries in the "Other" column (above) are more than 25 percent of the total expenditures, a breakdown of this item should be made.
[4] Specify whether feet, cubic feet, acres, miles, etc.

16—64068-3 U. S. GOVERNMENT PRINTING OFFICE

~~Mobilization Fee~~ (~~going to and from job~~ - ~~Diamond Drilling~~)

Docket No. DMA-1486X
Contract No. Idm-8162
J. E. Hall
2539 Jefferson Ave.
Ogden, Utah
January 28, 1952

United States Department of the Interior
Geological Survey
South 157 Howard Street
Spokane 8, Washington

Attention: Mr. A. W. Weissenborn, Executive Officer, DMEA, Field Team, Region II

I am enclosing herewith day by day Diamond Drill Report on hole #2 which started January 19th and completed at 222 feet January 28, 1952.

We have the complete core as obtained of the entire 423 feet from bedrock and we also have sludges saved from all drilling where core was not possible to obtain. Upon the recommendation of Engineer James Quinlin and Geologist Mason Rankin we saved the sludges from each 5 foot run. If the recovery on core was sufficient or nearly complete recovery, we simply dumped the core box, thoroughly washed it and set up for the next run. As long as the core was nearly complete, we did not save the sludges. However, when the core was missing even a foot or a few inches in most cases out of a 5 foot run, we saved the sludges for your departments inspection. So we either have a complete core or a complete sludge for the entire Diamond Drilling Program.

Up to this date we have not been able to run our assays and tests on sludges or core because we were awaiting the inspection and logging of same by Engineer James Quinlin and if possible we are anticipating that it will be possible to have Engineer Rankin also run over this core and make a report to your office of his findings.

Having no definite knowledge of assay reports, we have nothing definite to report to your department at this moment but will do so at our earliest possible convenience. However, developments so far look very encouraging and a few experts that have given us an unofficial opinion are very enthusiastic about the results obtained.

During these two weeks of Diamond Drilling, we had very inclement weather ranging from a few degrees to 10 and 12 below zero and one morning it was reported 21° below zero. This may account for some of the difficulties we run into in connection with drilling.

After Mr. Rankin and Mr. Quinlin have made their reports to your department and after you have the complete test and reports on cores and sludges, you will then be in a position to advise us what would be the next procedure in this course of development.

I am herewith attaching Form No. MF-104 together with receipts from Diamond Drill operators for the amount involved.

Yours very truly,

J. E. Hall

J. E. Hall

JEH/jt
Encl.

COPY

MF-104
(August 1951)

Budget Bureau No. 42-R1036.2.
Approval Expires 6-30-52.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Contract No. Idm-E 162

Name of Operator J. E. Hall
Docket No. DMA 1486X
Total Contract Amount $ 21,285.00
Government Participation: 50 % Amount, $ 10,642.50
Distribution of Expenditures for Month of January 15, 1952

Department of the Interior
Defense Minerals Administration
RECEIVED
APR 21 1952

STRATEGIC AND CRITICAL MINERAL EXPLORATION PROGRAM
OPERATOR'S MONTHLY PROGRESS REPORT

Operators are to submit monthly reports to the designated field representative of the Defense Minerals Administration. Reports are to be submitted in quadruplicate prior to the 15th day of the month following the reporting period.

Narrative.—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered is to be furnished.

Maps.—Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

Cost Accounts.—All applicable parts of this form are to be filled in. This report will form the basis for payments of the Government's participating share of expenses. Audits of accounts may be made from time to time.

CERTIFICATION

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

(Name of Company)

By J. E. Hall
(Signature of Authorized Official)
J. E. Hall

January 15, 1952
(Date)

Operator
(Title)

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

16—64068-3

MONTHLY SUMMARY COST STATEMENT

List as Shown on Exhibits Attached to Contract

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only		
				Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
1. Fixtures and Improvements:						
(*a*) Facilities						
(*b*) Buildings						
(*c*) Fixtures						
2. Operating Equipment:						
(*a*) Purchased[1]						
(*b*) Rented[2]						
(*c*) Furnished by operator						
3. Rehabilitation and Repairs:						
(*a*) Facilities						
(*b*) Buildings						
(*c*) Installations						

MONTHLY SUMMARY COST STATEMENT—Continued

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(d) Fixtures						
4. Labor [3]						
5. Supervision						
6. Supplies						
(a) Timber						
(b) Explosives						
(c) Repair Parts						
(d) Other						
7. Power						
8. Transportation						
9. Insurance						
(a) Fire						
(b) Public Liability						
(c) Workmen's Compensation						
10. Contract Work	$1407.00	$320.00 (Nov.)	$1727.00			
11. Other (specify)						
Assaying		11.50 "	11.50			
Eng. Report		238.50 "	238.50			
Total	$1407.00	$570.00 (Nov.)	$1977.00			
Deletions						
Adjusted totals						
Totals previously reported						
Totals to date	$1407.00	$570.00 (Nov.)	$1977.00			

[1] Enter amount paid during month toward total purchase price.
[2] Payments for rental of equipment or prorated depreciation on equipment owned by contractor.
[3] Submit copy of the Social Security form filed under the Old Age Insurance system showing complete wage and salary data or furnish copy of payroll sheet giving same data.

NOTE.—Indicate that portion of supervisory, office, and engineering salaries that is chargeable to this project.

FOR GOVERNMENT USE ONLY

Checked by
Entered by
Approved by Howe J. Reno
Amount approved for payment
Remarks

16—64068-3

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF January 15, 1952

(Supply Data Below Applicable Only to Your Operations)

Item	Costs					Progress [4]				
	Wages [1] and salaries	Equipment [2]	Supplies	Other [3]	Total	Unit	Units this month	Units previously reported	Units to date	Units authorized by contract (Exhibit A)
Drifting										
Crosscutting										
Raising										
Shafts										
Winzes						(Foot)				
Drill holes #1		$1407.00				500	201	None	201	500
Overburden										
Rehabilitation and preparation										
Geology and geophysics										
Trenching										
Sampling and assaying										
Roads and trails										
Test pits										
Other (specify)										
Totals		$1407.00								

[1] Prorate supervisory, engineering, and office salaries in proportion to man-shifts of direct labor.
[2] Prorate charges for equipment that is not exclusively for one type of job (such as compressors) against authorized units of work in each category.
[3] Where entries in the "Other" column (above) are more than 25 percent of the total expenditures, a breakdown of this item should be made.
[4] Specify whether feet, cubic feet, acres, miles, etc.

16—64068-3 U. S. GOVERNMENT PRINTING OFFICE

Docket No. DMA-1486X
Contract No. Idm-E162
J. E. Hall
2539 Jefferson Ave.
Ogden, Utah
January 15, 1952

United States Department of the Interior
Geological Survey
South 157 Howard Street
Spokane 8, Washington

Attention: Mr. A. E. Weissenborn, Executive Officer, DMEA, Field Team, Region II

I am submitting herewith a day by day report of developments on Diamond Drilling in hole #1, Revais Creek, Sanders County, Montana, (Idm-E162) beginning as of January 1, 1952; A total of 201 feet on hole #1 on this project.

It would appear to me that we are not really through the quartzite notwithstanding Engineer Rankin, according to his map and outline, expected to hit the contact at 140 feet and notwithstanding that we had considerable trouble from 134 to 151 feet (caves and loose ground) and notwithstanding that we hit a soft seam between 143 and 150 and that it appears that we hit the contact at exactly the depth that Engineer Rankin outlined.

If you will study these reports you will find that we had trouble and plenty of trouble in getting through the apparent soft vein material (as reported). They had to cement and redrill and their casing was stuck in the vicinity of between 135 to 200 feet; We were in continual trouble and as a matter of fact could not go beyond 201 feet without starting all over in a new hole. Diamond Drillers lost considerable equipment in hole #1. I believe two core bits and some NX casing and BX casing and were unable to go further than 201 feet so to this point Engineer Quinlin had previously suggested that we make one more run and then if we had no better showing to stop the hole there as we felt we had completed our objective. However, it is my personal opinion that we have had very poor recovery both in sludges and in core and correspondingly mediocre results of evidence we sought in hole #1.

I believe the logging of the core and the results to be obtained in the next Diamond Drill Hole will go to substantiate the belief that if hole #1 was not successful, it was due only to the fact that we were in trouble with the ground and with getting results almost the total distance from 70' to 201 feet; but I do believe that the job was handled to the best advantage that it could be handled under the conditions which confronted this entire project of hole #1.

For your office information, it would appear that hole #1 was not strictly in accordance with Engineer Rankin's recommendations. It was drilled at 61° in place of 60° and 70° south in place of 75° which was an error on the part of the drillers who set up the machine. I don't think this will make any material change but for your records you may refer to Mr. Quinlin and I believe that he will tell you this was the situation.

After sampling of core and sludges and after Engineer Quinlin and Rankin have made their report, this particular porject may have a different aspect to your office.

We are starting hole #2 within a day or two and I will give you the final report when this is completed. I am herewith attaching paid receipts representing $1407. paid.

Yours very truly,

J. E. Hall

J. E. Hall

JEH/jt
Encl.

P.S. I wish to mention at this time that it a pears that it is a customary practice with all Diamond Drill Contractors that they charge a Mobilization Fee (going to and returning from the job) and this amount in the instance of this contract was $500.00 which has been fully paid and which I am herewith submitting for your consideration; to be paid if allowed on this period of work or at the completion of hole #2 which should be about the last of this month. I will greatly appreciate your consideration of this phase of the cost which we have paid.

J. E. H.

COPY

1486X

Base & Misc. Div.

Contract # 10M-E 162

DMA Docket #1486X
J. E. Hall
2539 Jefferson Ave.
(New address)
Ogden, Utah
November 30, 1951

United States Department of Interior
Defense Minerals Administration
South 157 Howard Street
Spokane 4, Washington

Attention: Mr. A. E. Weissenborn

I am submitting herewith for your consideration, approval and payment the November statement for work up to this date on the above project, and am enclosing herewith a statement together with paid receipt from Mr. G. A. Sutherland for bulldozing November 1st and 2nd, $320., and for Mr. Mason W. Rankin, Engineers and Geologist's Report, $250.00. A detailed report of the work and a paid receipt for same is herewith attached.

I am also enclosing a report from Mr. Rankin (November 17th and 18th) together with a copy of Drilling Instructions to Contractor and two copies of map showing the exact location of two proposed diamond drill holes: #1 on the Indian Lease Claim and #2 on the Lucky Strike Claim; Also a copy of Assay from ore taken from Lucky Strike Claim.

This is my first report to you in connection with this project so if it is not exactly correct in all details, advise me and I will try to make the next report more as it should be.

I am enclosing a separate Progress Report.

Yours very truly,

J. E. Hall

J. E. Hall

JEH/jt
Encls.

MF-104
(August 1951)

Budget Bureau No. 42-R1036.2.
Approval Expires 6-30-52.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

(Docket No. DMA 1486X)
Contract No. 162
Idm-E

Name of Operator J. E. Hall
Docket No. DMA 1486X
Total Contract Amount $ 21,285.00
Government Participation: 50 % Amount, $ 10,642.50
Distribution of Expenditures for Month of November 1951

STRATEGIC AND CRITICAL MINERAL EXPLORATION PROGRAM
OPERATOR'S MONTHLY PROGRESS REPORT

Operators are to submit monthly reports to the designated field representative of the Defense Minerals Administration. Reports are to be submitted in quadruplicate prior to the 15th day of the month following the reporting period.

Narrative.—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered is to be furnished.

Maps.—Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

Cost Accounts.—All applicable parts of this form are to be filled in. This report will form the basis for payments of the Government's participating share of expenses. Audits of accounts may be made from time to time.

CERTIFICATION

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

(Name of Company)

By J E Hall
(Signature of Authorized Official)

11-30-51
(Date)

Operator
(Title)

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

16—64068-3

MONTHLY SUMMARY COST STATEMENT

List as Shown on Exhibits Attached to Contract

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only		
				Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
1. Fixtures and Improvements:						
(*a*) Facilities						
(*b*) Buildings						
(*c*) Fixtures						
2. Operating Equipment:						
(*a*) Purchased[1]						
(*b*) Rented[2]						
(*c*) Furnished by operator						
3. Rehabilitation and Repairs:						
(*a*) Facilities						
(*b*) Buildings						
(*c*) Installations						

MONTHLY SUMMARY COST STATEMENT—Continued

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(d) Fixtures						
4. Labor [3]						
5. Supervision						
6. Supplies						
(a) Timber						
(b) Explosives						
(c) Repair Parts						
(d) Other						
7. Power						
8. Transportation						
9. Insurance						
(a) Fire						
(b) Public Liability						
(c) Workmen's Compensation						
10. Contract Work	320.00		320.00			
11. Other (specify)						
Assaying	11.50		11.50			
Engineering Report	238.50		238.50			
Total	570.00		570.00			
Deletions						
Adjusted totals						
Totals previously reported						
Totals to date	570.00		570.00			

[1] Enter amount paid during month toward total purchase price.
[2] Payments for rental of equipment or prorated depreciation on equipment owned by contractor.
[3] Submit copy of the Social Security form filed under the Old Age Insurance system showing complete wage and salary data or furnish copy of payroll sheet giving same data.

NOTE.—Indicate that portion of supervisory, office, and engineering salaries that is chargeable to this project.

FOR GOVERNMENT USE ONLY

Checked by
Entered by
Approved by Glenn O. Reed
Amount approved for payment
Remarks

16—64068-3

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF November 1951

(Supply Data Below Applicable Only to Your Operations)

Item	Costs					Progress[4]				
	Wages[1] and salaries	Equipment[2]	Supplies	Other[3]	Total	Unit	Units this month	Units previously reported	Units to date	Units authorized by contract (Exhibit A)
Drifting										
Crosscutting										
Raising										
Shafts										
Winzes										
Drill holes										
Overburden										
Rehabilitation and preparation										
Geology and geophysics										
Trenching	$320.00 (bulldozing and trenching work by C.A. Sutherland)									
Sampling and assaying	11.50									
Roads and trails										
Test pits										
Other (specify)										
Engineering Report M. W. Rankin	238.50									
Totals	$570.00									

[1] Prorate supervisory, engineering, and office salaries in proportion to man-shifts of direct labor.
[2] Prorate charges for equipment that is not exclusively for one type of job (such as compressors) against authorized units of work in each category.
[3] Where entries in the "Other" column (above) are more than 25 percent of the total expenditures, a breakdown of this item should be made.
[4] Specify whether feet, cubic feet, acres, miles, etc.

16—64068-3 U. S. GOVERNMENT PRINTING OFFICE

PROGRESS REPORT

Contract # 10M-E 162

Docket No. DMA-1486X
J. E. Hall
2539 Jefferson Ave.
Ogden, Utah
November 30, 1951

United States Department of Interior
Defense Minerals Administration
South 157 Howard Street
Spokane 4, Washington

Attention: Mr. A. E. Weissenborn

Under date of October 31, 1951, I secured the services of a bulldozer and operator through Mr. G. S. Sutherland and on the morning of November 1, 1951, we started trenching on the Lucky Strike and Alice Lozeau Allotment copper claims in Revais Creek, Sanders County, Montana. We followed out the directions of Engineer A. B. Griggs and started trenching according to the sketch map of Workings of Revais Creek Copper Property as furnished to me.

Engineer James Quinlin appeared on the scene early on the morning of November 1st and immediately took charge of bulldozing and trenching operations. Due to mechanical imperfections of the machine and a broken blade point, the work was not too successful in opening up the trenches as we anticipated, however, we were successful in opening one trench between 200 and 250 feet from the east to the west across the strike of the gabbro dike about 30 or 40 feet north of the south line of the Lucky Strike in about the middle of the claim. At a depth of approximately 10 or 12 feet on this trench, we pushed out a considerable quantity of very fair looking surface rock.

Engineer Rankin later made one assay of a sample which assayed as follows: Gold 0.01, Silver 0.3, Copper 4.15, Pt. 0.03.

I also took a cross-section sample of the vein material uncovered in the above trenching and it run $8.70 in Copper, $2.10 in Gold, $2.05 in Platinum, 24¢ in Palladium and 49¢ in Silver. I thought this value for a surface showing was quite encouraging, however, both Engineer Quinlin and Rankin didn't seem to think much about this kind of a surface showing but we felt that it did tell us something about where the contact was and also we got a good idea of the thickness of the gabbro dike and perhaps some other valuable information to the engineers who are determining future prospecting and developing.

Under date of November 17th and 18th, 1951, Mining Geologist and Engineer Mason W. Rankin of 702 Harrison Avenue, Helena, Montana, worked for two full days going over this property in detail to determine advisability of diamond drilling and making his written report to your office in connection with the future development of this property, copy which is herewith attached. Engineer Quinlin no doubt made his report of this property direct to your office but I do believe he is quite enthusiastic about the real possibilities in this district. The Lozeau Lease together with the Lucky Strike Claim consists of an

area of approximately 100 acres and in the immediate vicinity of a proven property that has produced over $300,000.00 in ore in the last few years.

Engineer Rankin's map of the proposed diamond drilling which is herewith attached is quite comprehensive, I am sure, to your office and I feel that Engineer James Quinlin will be very glad to look over this report and, I am sure, he can give you his recommendations since he has personally gone over this ground very thoroughly and I believe that your office with the information from Mr. Quinlin and Mr. Rankin will feel fully justified in making amended or modified revision of the original contract if necessary to cover the diamond drilling exploration contract as well as the sinking of the shaft dependent upon the outcome of diamond drill disclosures.

Personally, I was very well pleased with the results of our bulldozing and I am thoroughly satisfied with the report and opinion of Mr. Rankin and Mr. Quinlin and sincerely trust that your department will look upon this immediate development and future development with favor.

I respectfully submit the report MF-104 together with the enclosed receipts, maps, and Geologist Report, and Drilling Instructions and trust they will meet with your approval and that this bill can be paid without delay and that I will receive an early reply granting the diamond drilling program as outlined and I will greatly appreciate the services once more of your Mr. Quinlin when or shortly after diamond drill operations are approved and commenced.

Yours very truly,

J. E. Hall

J. E. Hall

JEH/jt
Encls.

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

DOCKET COPY

PROJECT SUMMARY REVIEW

By: Ernest Wm. Ellis April 27, 1954

1. Docket No. DMEA-1486 (Copper)
Contract No. Idm-E162
Property - The Lucky Strike unpatented lode claim in sec. 33, T. 18 N., R. 22 W., in the unorganized Revais Creek mining district; also, approximately 80 acres leased from the heirs of Alice Lozeau, deceased, consisting of the allotment of Indian lands No. 2890, and further described as follows: The SE$\frac{1}{4}$SW$\frac{1}{4}$ and SW$\frac{1}{4}$SE$\frac{1}{4}$, sec. 33, T. 18 N., R. 22 W., and the NE$\frac{1}{4}$NW$\frac{1}{4}$ and NW$\frac{1}{4}$AND NE$\frac{1}{4}$, sec. 4, T. 17 N., R. 22 W., M.P.M., excepting the portions of the Slow Poke, Lucky Strike, Eagle, Dixon and Trade Dollar mining claims, contained within the boundaries of the above described tract, Sanders County, Montana.

Operator - J. E. Hall
4650 Harrison Blvd.
Ogden, Utah

Operator's Property rights -
Part owner of the Lucky Strike claim. Subordination Agreement of co-owner, dated October 23, 1951, attached to contract. Lessee of property described above as being leased.

2. Contract dated September 26, 1951

Work authorized -
A two-stage exploration project was planned to explore the hanging wall contact area of a large gabbro dike for copper ore bodies similar to those found within the contact area at the neighboring Green Mountain mine (See Docket DMEA-1175, Contract No. Idm-E251, Amador Mining Co.). Stage A was to consist of 400 feet of bulldozer trenching along the strike of the copper vein in the southwest corner of the Lucky Strike claim and southward in the leased property. If this trenching program proved successful, Stage B, consisting of sinking 150 feet of shaft on the vein, was to be undertaken.

The estimated cost of the project was as follows:

Stage "A" (Bulldoze 400 feet of trench, 40 hrs. at $12.00 per hour)	$480.00
Supervision, engineering, sampling and assaying	405.00
	$885.00
Stage "B" -150 ft. shaft @ $88.00 per foot.	$13,200.00
Fixtures and Improvements	2,100.00
Operating Equipment:	
To be purchased	150.00
To be rented	2,700.00
Supervision and engineering	2,250.00
Total	$21,285.00
Govt. participation at 50%	10,642.50

Amendments -

No. 1, dated December 10, 1951, changed the proposed plan under Stage B to a small diamond drilling program, when it was shown that the proposed trenching program would not provide the geologic information needed to justify a sinking operation.

The amendment provided for 500 feet of diamond drilling at $7.00 per foot, or $3,500.

Work completed -

A total of 20 hours of bulldozing was done under Stage "A" at a unit cost of $16.00 per hour, including transportation of bulldozer. Under Stage "B" of the project, 423 feet of diamond drilling was completed in two holes at a unit cost of $7.00 per foot.

Trenching started on November 1, 1951. After two days' work it was apparent that it was not feasible to carry on with the trenching program and the project was recessed. Work was resumed on December 29, 1951, when the diamond drilling phase of the project was started. Drilling was completed January 28, 1952, and no work was done after that date. A mutual termination agreement was sent to the Operator in January 1953; however, it was not returned until about June 1, 1953; after the Operator had been notified that the contract had expired. Technically, the project was terminated January 21, 1953, the date shown on the termination agreement.

3. Audit Report of Review, dated May 26, 1953.

Total accepted cost	$3,531.00
Government participation at 50%	1,765.50

No equipment or supplies were purchased for the project

4. Certification - None recommended.

There was no production from the project during the exploration.

5. Comments -

There were no unusual operating difficulties encountered in performing the contract work. The bulldozer used in Stage "A" of the work proved inadequate, and it was decided to terminate this phase of the project and diamond drill instead.

The Operator had some difficulty in financing his share of the work. Although a technical consultant planned the drilling program for the Operator, actual supervision of the work was left to the Operator. Not being an experienced miner or driller, the Operator's supervision proved to be rather inadequate.

The Field Team's representatives recommended that Mr. M. W. Rankin's report in the form of a letter dated February 13, 1953, to Mr. John W. Warren, vice president of Montana Copper King Mines, Inc., summarizing the results of the drilling program, be accepted in lieu of the Operator's final report. (A copy of this letter, apparently, appears in the files of DMEA Region II.) Mr. Weissenborn, Executive Officer of Region II, by letter dated March 31, 1954, stated: "We have asked the Operator for a final report but have received none and we doubt seriously whether, even if we obtain a report, it would be very informative, We, therefore, are inclined to waive this requirement."

How high?

The joint engineering and geological report by the Field Team states: "The spectacular gold values obtained from diamond drill hole No. 2 probably can be discounted; there may even be some question as to the validity of such a sample as there is no core for these sections. However, the presence of gold, copper, silver, and platinum indicates that there is a similarity between the Green Mountain (DMEA-1175) and Revais Creek deposits.

"Undoubtedly, from the Operator's viewpoint, the high-grade gold encountered in the second diamond drill hole merits investigation by mine opening; however, Government participation in such work is not considered warranted. It is now believed that exploration of the Revais Creek property should be contingent upon the results of DMEA work at the neighboring Green Mountain mine. Should this work prove successful, then further exploration at the Revais Creek property would be warranted. It is believed that additional diamond drilling of the contact area should be the

first step in any future exploration program. This could be followed by mine openings, if conditions warranted. We believe the best way to explore the contact area by mine openings would be to drift on the gabbro-quartzite contact at depth from the Green Mountain mine, provided that satisfactory arrangements could be made with the owners of this property. If such arrangements could not be made, it would then be necessary to sink a shaft at the Revais Creek property."

The Field Team concluded that although one of the two completed diamond drill holes encountered high-grade gold at the gabbro-quartzite contact, this in itself is not considered sufficient justification on which to base a certification and none is recommended.

Ernest Wm. Ellis

Ernest Wm. Ellis

☒ Audited

WORK ANALYSIS SHEET - DMEA PROJECT

☒ Actual Cost

☐ Certified No.

Analysis as of 12/7/54
Incl. Voucher for Jan. 1952

☐ Agreed Unit Costs

Name J. E. Hall

DMA Docket No. 1486X

State Montana

Commodity Copper

Idm-E No. 162

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts	150	16,900.00			
Winzes					
Drilling (Specify) Diamond-core (Amendment)	500'	3500.00	423	3211.00	3211.00
Surface Excavation Trenching 400'		884.00		320.00	320.00
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Engineering, Assaying				250.00	250.00
Totals		$21,284.00		$3,531.00	$3531.00

Distributed under Authorized:

Trenching	$ 884.00
Shaft sinking	13200.00
Fixtures & Improvements	2100.00
Operating equipment	
" To Purchase	150.00
" " Rent	2700.00
Supervision, Eng, etc.	2250.00
	$21,284.00

Prepared by [signature]

71626

File Copy
Surname
Klugescheid.

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

JUN - 2 1955

Mr. J. E. Hall
2539 Jefferson Avenue
Ogden, Utah

Re: Docket No. DMEA-1486X (Copper)
Revais Creek Copper Property
Sanders County, Montana
Contract No. Idm-E162 (Terminated)

Dear Mr. Hall:

As requested in your letter of May 20 to Mr. A. E. Weissenborn, Executive Officer, Region I, Northwest District, we are returning two copies of the original contract and one copy of a Modification of Mining Lease, with the Indian Service of the Interior Department.

Sincerely yours,

C. O. Mittendorf

Administrator

WPKlugescheid/er 6/2/55

Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Volin, USBM
Mr. Kiilsgaard, USGS
Region I (2), NW Dist.
Chron.

R.C.G.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

May 25, 1955

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

Re: Docket No. DMEA-1486X (Copper)
J. E. Hall
Revais Creek Copper property
Sanders County, Montana
Contract No. Idm-E162 (Completed)

Dear Mr. Selfridge:

Enclosed are copies of a letter received May 23, 1955, from Mr. J. E. Hall asking that his original contract with the U. S. Department of Interior, Indian Service, covering a lease which he submitted with his application, be returned to him.

In its memorandum of August 8, 1951, to the Chairman of the Copper Commodity Committee, the field team transmitted certain documents, including a mining lease from the Indian Service. Would you kindly return this document to Mr. Hall, with copies of your transmittal letter to this office? Thank you. Mr. Hall's address is 2539 Jefferson Avenue, Ogden, Utah.

Very truly yours,

A. E. Weissenborn

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

Enclosure 1 (in dupl.)

cc: USBM (2) w/encl.

2539 Jefferson Ave.
Butte, Mont.
May [illegible], 1955

Re: Docket [illegible]-1486E (Cooper)
J. [illegible] Hall, Sanders County,
Montana
Contract No. [illegible]-172

U. S. Department of the Interior
Bureau of Mineral Exploration and Administration
South 1[illegible]7 Howard Street
Spokane 4, Washington

Attention: Mr. A. L. Weissenborn

Gentlemen:

About one year I made application for a lease, I believe I sent to your office my original contract with the U. S. Department of the Interior, Indian Service, covering a certain lease of approximately 80 acres in Revais Creek, Sanders County, Montana.

I do not seem to have a duplicate of this contract, and it is very important that I have the contract or duplicate of same for my records. So I am wondering if you have this in your office, and if you have no further immediate need for it, if it could be returned to me for my files.

Very truly yours,

J. [illegible] Hall

JHH/vs

RECEIVED
MAY [illegible] 1955
[illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

May 25, 1955

Mr. J. E. Hall
2539 Jefferson Avenue
Ogden, Utah

Re: Docket No. DMEA-1486X (Copper)
Revais Creek Copper property
Sanders County, Montana
Contract No. Idm-E162 (Completed)

Dear Mr. Hall:

This will acknowledge your letter received in this office May 23, 1955, requesting that the mining lease you have with the Indian Service, which was one of the supporting documents sent to us with your application for exploration assistance on the above-cited property, be returned to you.

This lease, of course, was sent to Washington with your application, and we have requested that it be returned to you. You should receive it soon. If you don't receive it within a reasonable length of time, please let us know and we will follow up on it.

Very truly yours,

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

cc: DMEA (2)
USBM (2)

MINING LEASE ALLOTTED INDIAN LANDS.

Contract No. I-29-Ind.-3909
Allot. No. 2890, Alice Lozeau, deceased.

This contract and a modification of the mining lease has been removed from this file and returned to the owner at his request. Owner being J. E. Hall.

This matter was taken up with the legal division, which said that we do not need these papers as they are on file with the Commissioner of Indian affairs.

W. P. Klugescheid

No. 157 Howard Street
Spokane 4, Washington

May 3, 1955

Mr. J. E. Hall
2539 Jefferson Avenue
Ogden, Utah

Re: Docket No. DMEA-1486 (copper)
J. E. Hall
Revais Creek property
Sanders County, Montana
Contract No. Idm-2162 (Terminated)

Dear Mr. Hall:

This will acknowledge your letter of April 25, 1955, regarding the Revais Creek property.

We are pleased to learn that you are planning additional work on the property, and assume that you are interested in obtaining a copy of our map of the property to guide this work. On checking our files we find that the map of the property Mason W. Rankin prepared for you is essentially the same as our map. As we do not have an extra copy of our map which we can send you, we suggest that you use Mr. Rankin's. Undoubtedly, Mr. Rankin's map will serve the purpose as well as ours.

Sincerely yours,

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

cc: DMEA (2)
USBM (2)
Quinlan

	NOTED	DATE
al		
Jack		
Jim		

Minerals Administration
RECEIVED
MAY 6 1955

2539 Jefferson Ave.
Ogden, Utah
April 26, 1955

Re: Docket DMEA-1486X
(Copper)
Contract Idm-E162

U. S. Department of the Interior
Defense Minerals Exploration Administration
South 157 Howard Street
Spokane 4, Washington

Attention: Mr. A. E. Weissenborn

Gentlemen:

If you have extra maps of the project covered by DMEA-1486X, Contract #Idm-E162, I would surely appreciate your sending me one or more copies of the same.

For your information, at the present time I am planning on an open-pit development of this property. I will report to your office later in this regard.

Yours very truly,

J. E. Hall

JEH/vs

RECEIVED
APR 27 1955
U. S. G. S.
SPOKANE, WASH

Surname 700

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

Ching
Ellis
Chamber
Johnson
Selfridge

Mr. J. E. Hall
2539 Jefferson Avenue
Apartment 1
Ogden, Utah

DEC - 7 1954

Re: Docket No. DMEA-1486 (Copper)
Contract No. Idm-E162
Revais Creek Property
Sanders County, Montana

Dear Mr. Hall:

Reference is made to your letters of November 4 and November 10, 1954, addressed to Mr. A. E. Weissenborn, regarding repayment through royalties on production, of the amount contributed by the Government to the subject project.

As you know, the contract was terminated by agreement on January 21, 1953. Because the results of the exploration were unfavorable we did not issue a certificate of discovery or development which would create a lien against the subject property. You are, therefore, under no obligation to repay the amount ($1,765.50) contributed by the Government to the project.

While we are closing our books and records with respect to this project, your attention is called to Article 11 of the Contract which requires the Operator to "keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract."

Your interest in the Exploration Program of the Defense Minerals Exploration Administration and your willingness to participate therein are appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

MChing:am
12-1-54
cc to: Admr. Reading File
Operating Committee
Docket
Contract & Audit Division
Messrs. C. H. Johnson, Rm. 3621
T. H. Kiilsgaard, Rm. 5224
DMEA Field Team, Region II(2)
Code 700
Mr. Ching

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

November 22, 1954

Air Mail

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

Re: Docket No. DMEA-1486 (copper)
J. E. Hall
Revais Creek
Sanders County, Montana
Contract No. Idm-E162

Dear Mr. Selfridge:

Reference is made to letters of November 4 and 10, 1954, received from Mr. J. E. Hall, operator of the above-cited property, and our answer to Mr. Hall of November 19, copies of which are attached.

We did not recommend a certification and none was made. We do not know where this production is from that Mr. Hall mentions in his letter of November 10, but we do not believe it is from anything that was explored under the DMEA contract; nor do we have any way of knowing that he will actually be able to produce any appreciable amount of ore.

We do not feel that we have the authority to inform Mr. Hall of his obligations, but we do believe that a letter should go to him immediately from the Administrator.

We have no copies of correspondence in our files advising the operator to the effect that he has no obligations.

By Field Team, Region II

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)
Quinlan

XXXXXXXXXXXXXXXXX
So. 157 Howard Street
Spokane 4, Washington

November 19, 1954

Air Mail

Mr. J. E. Hall
2539 Jefferson, Apartment 1
Ogden, Utah

Re: Docket No. DMEA-1486 (copper)
J. E. Hall
Revais Creek property
Sanders County, Montana
Contract Idm-E162 (Terminated)

Dear Mr. Hall:

Thank you for your letters of November 4 and 10, 1954. I am very sorry they did not get answered before this.

In answer to your November 4 letter, the Government contributed $1,765.50 to project work. As to your obligations to repay the Government for its share of the costs, this matter has been referred to our Washington office and you may expect to hear directly from them in a few days.

Regarding your letter of November 10, I regret that I cannot write the Anaconda smelter about accepting your shipments. I have no authority to make such a request and it would be improper for me to do so.

Very truly yours,

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

cc: DMEA (2)
USBM (2)
Quinlan

REFER TO	ACTION	NOTED	DATE

Letter smelter 11/17/54

2539 Jefferson, Apt. 1
Ogden, Utah
November 10, 1954

Mr. A. E. Weissenborn
U. S. Department of Interior
Geological Survey
South 157 Howard Street
Spokane 8, Washington

Re: J. E. Hall, Docket #DMA-1486X,
Contract #Idm-E162

NOV 26 1954

Dear Sir:

Further in connection with my recent letter, yet unanswered, please advise just how you want the smelter return checks made out and to whom they should be sent, and of course advise me the total and final amount due on the above-mentioned contract.

In connection with shipping our ore, I am just wondering, Mr. Weissenborn, if your Office would be kind enough to do me a special favor, which is to use your influence with the Anaconda Copper Company to have them handle our ore at the Anaconda Smelter, Anaconda, Montana. Some time ago they wrote me that they were not handling any custom orders, but I am very certain, Mr. Weissenborn, that if they knew your office was desirous of assisting a small mine operator in getting started so that he could pay off his loan from the Government, as well as produce strategic metals, they would no doubt be more apt to consent to accepting this ore than if I just made the request. If you will address your letter to the proper people over there, I am sure it will have a very beneficial influence upon my being able to ship my ore there for treatment.

The new body that we have discovered and developed is only 300 feet due east of diamond drill hole #2. It is about 10 feet wide, 30 feet long, and averages better than $20.00 a ton. It contains $3.20 in gold, $1.94 in platinum and palladium. It also has about 0.12 in nickel and 0.13 in cobalt. It has some titanium and several other metals, and will average better than 4 - 8% copper.

I certainly would appreciate it, Mr. Weissenborn, if you would write the Anaconda Smelter about accepting ore from this mine, and give me any assistance that you can in that connection.

Again I wish to thank you for your fine cooperation in the development of my project, which was started, as you know, in January, 1952. We would welcome an inspection from your office of this new development at your first convenience.

Yours very truly,

J. E. Hall

RECEIVED
NOV 12 1954
U.S.G.S.
SPOKANE, WASH.

JEH/vs

RECEIVED
NOV 26 1954

2539 Jefferson Ave., Apt. 1
Ogden, Utah
November 4, 1954

RE: Docket #DMA-1486X
Contract #Idm-E162

U. S. Department of Interior
Geological Survey
So. 157 Howard Street
Spokane 8, Washington

Attention: Mr. A. E. Weissenborn

Dear Sir:

At this time it would appear that soon I will be able to start shipping ore from the Montana Copper King Company, Inc., property in Revais Creek, Sanders County, near Dixon, Montana, and we will of course comply with the payments of 5 per cent of net smelter returns to apply on the above loan contract.

I wish that your office would advise me by return mail the exact amount of money due on this contract at the present time.

Yours very truly,

J. E. Hall

J. E. Hall

Last pmt 4/30/51
contr. by Bert: 1,765.50

JEH/vs

This is an old-type contract, not certificate. We are not obligated to return the money but I guess if he wants to pay it back we will. Let's Refund?

RECEIVED
NOV 8 1954
U. S. G. S.
SPOKANE, WASH.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 29 1954

April 28, 1954

Memorandum

To: E. W. Ellis, DMEA

From: C. H. Johnson, Bureau of Mines

Subject: DMEA-1486X (Copper) J. E. Hall, Revais Creek prospect, Sanders County, Montana, Final Report

I have reviewed this final report. It is an excellent account of what was done.

The question of certification or no certification is up to DMEA, but from one viewpoint, at least, it would seem as if the Government might certify even a gold discovery, in order to recover some of its investment from possible future royalties.

It is unfortunate that the high gold showing in Hole 2 was not explored by further drilling, for it would seem that an ore occurrence with substantial copper content might have been indicated. I disagree with the recommendation that no consideration be given to possible further exploration. I also question the statement in the Recommendations, page 2, that a negative result at the Green Mountain mine, which adjoins the Revais Creek, would in effect condemn the entire district. This is just a little too sweeping.

C. H. Johnson
C. H. Johnson

Copy - Mr. Newcomb, USGS
Minerals Division
Base Metals Branch
C. H. Johnson
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D.C.
~~XXXXXXXXXXXXXXXXXXXX~~
So. 157 Howard Street
Spokane 4, Washington

Defense Minerals Administration
RECEIVED
APR 3 - 1954

April 27, 1954

Mr. R. J. Hindman, Certifying Officer
DMEA Field Team, Region II
1201 North Division
Spokane, Washington

Re: Docket No. DMEA-1486 (Copper)
J. E. Hall
Revais Creek Copper Property
Sanders County, Montana
Contract No. Idm-E162

Dear Mr. Hindman:

This is to inform you that the subject contract has been terminated by mutual agreement, after commencement but before completion of the work. The operator has been requested to submit a final report on the accomplishments of the project, but has, to date, failed to submit this report. He has, however, submitted copies of a letter containing valuable information on the accomplishments of the project and this letter, dated February 13, 1952, is hereby accepted by the Executive Officer in lieu of the final report.

The Field Team final report has been submitted to the Operating Committee and a final audit has been made of the operator's account. The Government has no equity in any equipment used in the project, nor has it any equity in unexpended supplies or materials.

As contract work has been terminated and obligations complied with, it is requested that the operator's account be reviewed and closed out as quickly as possible.

Sincerely yours,

Wing G. Agnew
Acting Executive Officer
DMEA Field Team, Region II

cc: DMEA (2)
USBM (2)
Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 3 - 1954

April 27, 1954

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

Re: Docket No. DMEA-1486 (Copper)
J. E. Hall
Revais Creek Copper Property
Sanders County, Montana
Contract No. Idm-E162

Dear Mr. Selfridge:

Enclosed are 3 copies of a letter addressed to Mr. John W. Warren, Vice-President of the Montana Copper-King Mines, Inc., 113 N. Broadway, Butte, Montana, and signed by Mason W. Rankin, Mining Geologist. This letter has been accepted by the Executive Officer in lieu of a final operator's report of the cited contract. The letter is incomplete but it does contain valuable information and it probably is all that we can expect to receive from the operator. Copies of this letter are being retained for the files of this office and for the files of the Certifying Officer.

By Field Team, Region II

Wing G. Agnew, Acting Executive Officer
U. S. Bureau of Mines

Thor H. Kiilsgaard, Acting Member
U. S. Geological Survey

Enclosure
cc: USBM (2)
Quinlan

Exhibit #1

Mason W. Rankin
518 Felt Building
Salt Lake City, Utah

Feb. 13, 1952

J. E. Hall
Ogden, Utah
Docket #DMA-1486X
Contract #Idm-E162

Mr. John W. Warren, Vice-President
Montana Copper King Mines, Inc.
113 North Broadway
Butte, Montana

Lucky Strike
Revais Creek District
Sanders Co., Montana

Dear Mr. Warren:

I submit as follows with regard to the results of your recent drilling program:

In general, core recovery was fairly satisfactory, although the total absence of core in the ore section of Hole No. 2, between 167 and 175 feet is regrettable. By exercising care, the drill operator could probably have effected a partial core recovery in this section. In any future drilling, any change in ground conditions or color of return water should be the signal for an immediate reduction in drilling speed.

Hole No. 1 represented a clean miss so far as mineralization is concerned. If any further drilling should be contemplated in this area, two alternate possibilities exist. First would consist of drilling a number of short holes near the present bulldozer exposures of copper disseminated in the Gabbro. This would determine the trend, if any, of this mineralization and would then serve as a guide for deeper drilling. The second suggestion would be to set-up and drill some distance to the south of Hole No. 1, near the property line.

Interpretation of the drill core of Hole No. 1 is complicated by the presence of numerous quartzite blocks and fragments, zenoliths, within the Gabbro. Some of these have been resorbed making positive identification of rock type difficult. A summary log of the Hole follows:

Hole No. 1

0'-35'	Wash - no core
35'-58'	Light colored even grained quartzite
58'-88'	Gabbro - numerous quartzite inclusions (contact phase)
88'-105'	Medium grained fresh Gabbro
105'-107'	Quartzite
107'-140'	Contact phase - gabbro with quartzite inclusions, some resorption and recrystallization
140'-145'	Structure? Core recovery very poor, some quartzite gouge.

145'-201' Quartzite, generally micaceous, somewhat altered and metamorphosed.

NOTE: Core recovery from 170'-201' very poor, possibly due to fracturing in the quartzite.

Assay Log Sludge - Hole No. 1.

Interval	Au	Ag	Cu
140'-145'	tr	tr	tr
174'-179'	tr	tr	0.03
184'-189'	tr	tr	0.02
197'-201'	tr	tr	0.02

Hole No. 2

0'-26' Wash, no core
26'-167' Quartzite, light colored, even grained
167'-175' No core - well mineralized structure. Very high gold values associated with sulphides and iron oxides, carbonates as shown in sludge.

175-204' Gabbro
204'-222' Largely quartzite. Some irregular Gabbro contacts.

Assay Log Sludge - Hole No. 2

Interval	Au	Ag	Cu	Pt
149'-160'	tr	0.2	0.05	
160'-167'	0.01	0.02	0.02	
167'-175'	40.64	4.6	0.45	0.085
175'-185'	tr	0.1	0.02	

In view of the exceedingly high gold values obtained in the interval from 167'-175', it was considered advisable to conduct microscopic work on this sludge. Accordingly, the portion of this sample which you furnished was submitted to Mr. R. L. Gibbs of the United States Bureau of Mines at the research station in Salt Lake. Mr. Gibbs made a brief examination in the writer's presence.

The sample was first split and a portion reserved for further work if desired. Following this, the sample was screened to produce plus 48 mesh and -48 mesh fractions. Both fractions were then panned roughly before examination under a binocular microscope. During panning a considerable proportion of iron oxide was removed as slimes. Numerous iron filings, worn off the drill rods were removed magnetically.

The panned material was observed to contain abundant coarse gold visible to the naked eye, and one flattened fragment about this size ∾ was present. Under the microscope the gold was noted to be sometimes intimately

intergrown with iron oxides. Sulphides positively identified included pyrite and galena, the pyrite being badly tarnished. Chalcopyrite was identified only tentatively due to the high degree of tarnishing. Carbonate minerals were also noted. The expected and usual rock minerals were observed, but not specifically listed.

It is apparent that the drill hole encountered a sizeable and well mineralized vein zone containing excellent gold values in association with some residual sulphides, but principally with fairly abundant oxidation products. Considering the extent of oxidation with consequent leaching, it is not surprising that the copper content (0.45%) is rather low. The presence of rather high grade gold ore shoots in near association, with copper ores in the nearby Drake mine is an established fact. Consequently it may be considered probable that copper will be found in considerably greater quantity at other points within the zone. The presence of platinum in the sample presents an additional similarity to the Drake mine mineralization.

Initial development should probably consist of sinking a vertical shaft at the site of No. 2 hole, with a crossout to the vein at the elevation of the drill hole intercept. Sinking costs should not exceed $100 per foot, and drifting costs $25 per foot. Additional drilling could, of course, be performed as a preliminary phase, but in the event of disappointing or inconclusive results the showing would still merit investigation by mine openings. Even after discounting the unusually high gold content, the showing certainly evidences an unusual degree of merit.

Respectfully submitted,

Mason W. Rankin

Mason W. Rankin
Mining Geologist

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

April 15, 1954

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

Re: Docket No. DMA-1486X (Copper)
J. E. HALL
Revais Creek Copper Property
Sanders County, Montana
Contract Idm-E162

Dear Mr. Selfridge:

Enclosed are four copies of a Field Team final report written by Stephen W. Zoldok, mining engineer, Bureau of Mines, and J. J. Quinlan, geologist, Geological Survey, on the captioned exploration project.

Although one of the two completed diamond drill holes encountered high-grade gold at the gabbro-quartzite contact, this in itself is not considered sufficient justification on which to base certification and none is recommended. The Field Team concurs with the recommendations of the Field Team examiners.

By DMEA Field Team, Region II

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 4
cc: USBM(2)
Quinlan

Reviewed by
DMEA OPERATING COMMITTEE
4-23-54
(date)

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD TEAM, REGION II

FINAL REPORT

Contract Idm-E162

by

Stephen W. Zoldok
Mining Engineer
U. S. Bureau of Mines

J. J. Quinlan
Geologist
U. S. Geological Survey

J. E. HALL, OWNER AND LESSEE
2539 Jefferson Avenue
Ogden, Utah

Docket No.:	DMA-1486X
Commodity:	Copper
Contract date:	September 26, 1951
Termination date:	January 21, 1953

Reviewed by
DMEA OPERATING COMMITTEE
4-23-54
(date)

REVAIS CREEK COPPER PROPERTY
Revais Creek Mining District (Unorganized)
Sanders County, Montana

Spokane, Washington

January 25, 1954

FINAL REPORT

J. E. HALL, OWNER AND LESSEE
Revais Creek Copper Property
Revais Creek Mining District (Unorganized)
Sanders County, Montana

Contract Idm-E162

* * * *

INTRODUCTION

This report describes a copper exploration project conducted by Mr. J. E. Hall of Ogden, Utah, with Defense Minerals Exploration Administration assistance. The project was conducted under the terms of Exploration Project Contract Idm-E162 on the Revais Creek Copper property, Sanders County, Montana.

Summary

The project was undertaken to explore the hanging wall contact area of a large gabbro dike for copper ore bodies similar to those found within the contact area at the neighboring Green Mountain mine. At the Green Mountain mine ore occurs in narrow veins chiefly along a fault which generally follows the hanging wall contact of the gabbro dike with quartzite.

A two-stage exploration was planned. Stage A was to consist of a bulldozer trenching program. If this trenching program proved successful, Stage B was then to be undertaken. Stage B was to consist of sinking 150 feet of shaft on the vein.

This proposed program was abandoned in favor of a small diamond drilling program, when it was shown that the proposed trenching program would not provide the geologic information needed to justify a sinking operation. Two diamond drill holes, 201 and 222 feet in length, were drilled to test the contract area. One hole proved to be a complete blank. The other cut high-grade gold, 40.64 ounces per ton, but little copper at the gabbro-quartzite contact. As the results of the drilling were inconclusive insofar as the copper possibilities were concerned, a commitment was made by the Government to have several more holes drilled under the terms of the contract; however, the operator did not take any concrete action to initiate this additional drilling and the contract was finally terminated by mutual agreement of the operator and the Government.

The estimated cost of the original proposed program was $21,285, of which the Government agreed to pay 50 percent or $10,642.50. Funds expended under the contract amounted to $3,531, of which the Government's share was $1,765.50.

Recommendations

Although one of the two completed diamond drill holes encountered high-grade gold at the gabbro-quartzite contact, this in itself is not considered sufficient justification on which to base certification and none is recommended.

It is recommended that Mr. M. W. Rankin's report in the form of a letter of 2/12/53 to Mr. John W. Warren, vice president of Montana Copper King Mines, Inc., summarizing the results of the drilling program, be accepted ~~as~~ in lieu of the operator's final report.

Undoubtedly, from the operator's viewpoint, the high-grade gold encountered in the second drill hole merits investigation by mine openings; however, Government participation in such work is not warranted. In the past, a commitment was made by the Government to the operator to undertake additional diamond drilling in order to further test the contact area for copper. As the operator did not take any concrete action to initiate the additional drilling, we can see no point in reopening the contract or renegotiating a new contract in the immediate future to allow such work, if such a request is submitted.

The DMEA project, Docket No. 1175X, Contract No. Idm-E251, now underway at the neighboring Green Mountain mine will much better test the copper potential of the Revais Creek district than exploration at the Revais Creek copper property. Considering this and the fact that justification for the Revais Creek project was primarily based on the similarity of geology between the Revais Creek property and neighboring Green Mountain mine, it is believed that further Government participation in work at the Revais Creek property should be contingent upon the results of exploration at the Green Mountain. If this work proves successful, then consideration could be given to further exploration at the Revais Creek property. If, however, exploration is not successful, no further work should be considered by the Government because the deposits of the district will have been shown to be small and rather insignificant.

LOCATION AND ACCESSIBILITY

The Revais Creek Copper property is in Sanders County, Montana, on Revais Creek, a tributary of the Flathead river. It is near the town of Dixon, a small agricultural community on U. S. Highway 10A and the main line of the Northern Pacific Railroad. Dixon is 44 miles northwest of Missoula. The property adjoins the Green Mountain property, currently being explored by the Amador Mining Company under Contract No. Idm-E251.

The property is readily accessible, being 3 miles south of U. S. Highway 10A on the Revais Creek county road. This road connects with U. S. 10A 3 miles west of Dixon and is graveled from the highway to the neighboring Green Mountain property.

The property is in the northeast foothills of the Coeur d'Alene mountains. The summers are pleasant and warm. The winters are cold but snowfall is light and does not seriously hamper mining operations.

PROPERTY

The property included in the exploration project is described as follows: The Lucky Strike unpatented lode claim in sec. 33, T. 18 N., R. 22 W., in the unorganized Revais Creek mining district and recorded at the County Seat of Sanders County on page 419, volume No. 51 of deed records. Also, approximately 80 acres leased from the heirs of Alice Loseau, deceased, consisting of the allotment of Indian lands No. 2890, and further described as follows: The SE¼SW¼ and SW¼SE¼, sec. 33, T. 18 N., R. 22 W., and the NE¼NW¼ and NW¼NE¼, sec. 4, T. 17 N., R. 22 W., M.P.M., excepting the portions of the Slow Poke, Lucky Strike, Eagle, Dixon and Trade Dollar mining claims, contained within the boundaries of the above described tract.

Mine workings consist of three short adits and several shallow test pits excavated many years ago. There are no surface facilities at the property.

THE PROJECT

The project was undertaken to test the hanging wall contact area of a large gabbro dike for small but high-grade copper ore bodies similar to those found within the contact area at the neighboring Green Mountain mine. At the Green Mountain mine ore occurs in narrow veins, chiefly along a fault which generally follows the hanging wall contact of the gabbro dike with quartzite. The bodies or shoots along this contact fault are controlled by the intersection of subsidiary faults with the contact fault and by changes in strike or dip of the contact fault.

A two-stage exploration program was planned. Stage A, 400 feet of bulldozer trenching (40 hours), was to be undertaken to test the contact area for structural conditions similar to those which are believed to control ore deposits at the Green Mountain mine. If results of Stage A warranted further exploration, then Stage B would be undertaken by sinking 150 feet of shaft on the vein.

After 20 hours of dozer trenching had been completed, it was apparent that it would not be possible to obtain the desired structural evidence by the proposed trenching program. Steep slopes, thick talus and limitations of the D6 Caterpillar cable dozer employed were

contributing factors which prevented successful completion of the trenching program. In order to otherwise test the contact area, the contract was amended to allow the drilling of two diamond drill holes. The total length of the two holes was not to exceed 500 feet. Amendment No. 1, which authorized this drilling program, also deleted Stage B of the original contract.

The first hole was drilled approximately 800 feet north of the principal Green Mountain workings (see plate 1). It was drilled on bearing S. 75° E., inclination -60° and to a depth of 201 feet. The second hole was drilled 400 feet north of the first hole. It was drilled on the bearing S. 75° E., inclination -60° and to a depth of 222 feet.

For all practical purposes the first hole proved a complete blank. The second hole, however, encountered high-grade gold but little copper at the gabbro-quartzite contact. No further work was done on the project, although consideration was given to additional diamond drilling. The Field Team discussed with the operator a plan to drill several additional holes, but the operator took no concrete action to initiate this additional drilling. He became involved in organizing a company to carry on the work and assume responsibility of the contract, and before he completed the details of organization of the new company, the contract expired. It appears that either the operator was financially unable to carry on the work or else he did not want to assume complete financial responsibility for the project.

The contract was signed September 26, 1951, and trenching started on November 1, 1951. After two days' work it was apparent that it was not feasible to carry on with the trenching program and the project was recessed. Work was resumed on December 29, 1951, when the diamond drilling phase of the project was started. Drilling was completed January 28, 1952, and no work was done after that date. A mutual termination agreement was sent to the operator in January 1953; however, it was not returned until about June 1, 1953, after the operator had been notified that the contract had expired. Technically, the project was terminated January 21, 1953, the date shown on the mutual termination agreement.

Geology

The geology discussed in this report is as much or more that of the neighboring Green Mountain mine than the Revais Creek Copper prospect. The reason for this is that the project was undertaken to find ore bodies similar to those found at the Green Mountain mine by applying knowledge of ore controls at the Green Mountain to the adjacent Revais Creek Copper property. The geology of the Green Mountain mine has been described by R. D. Sample, "Report on the Green Mountain Mine (formerly Drake or Dixon Mine)", Revais Creek

District, near Dixon, Sanders County, Montana, U.S.G.S. War Minerals Investigation, 1942. The authors of this report have relied heavily on Sample's report and, for obvious reasons, have borrowed freely of the information and ideas expressed therein.

The Revais Creek and Green Mountain properties are principally underlain by thin-bedded quartzites and argillites of the Ravalli formation of the Belt series (pre-Cambrian). These rocks have a general northeast strike and dip 30 to 80 degrees east.

Along Revais Creek, the Ravalli formation has been intruded by a hornblende gabbro dike, estimated to be about 250 feet thick. The dike strikes north, varying 10 degrees east or west from this direction, and dips 45 to 60 degrees to the west. The contact, where visible, is irregular and occasionally there are inclusions of quartzite within the gabbro.

At the Green Mountain mine, ore occurs in narrow veins, chiefly along a fault which generally follows the hanging wall contact of the gabbro dike with the quartzite. Drag along the fault indicates reverse movement. For the most part, the ore bodies or shoots are confined to areas where the fault and contact are coincident and are controlled by the intersection of subsidiary faults with the contact fault, as well as changes in strike or dip along the contact fault. It is suspected that any feature or combination of features that produced large brecciated zones are important ore controls. It should be pointed out that the deposit has been primarily explored and studied in the oxidized, leached, and secondary enriched zones and ore controls recognized in these zones may or may not apply to the primary ore zone.

The most common ore minerals of the oxide zone are chrysocolla and malachite, although cuprite and tenorite are also important. The oxide zone extends to about the No. 1 level or approximately 100 feet below the surface.

Below the oxide zone is a leached zone. This zone is relatively narrow, extending only 10 to 20 feet down the dip of the vein and containing some limonite and small amounts of malachite and chrysocolla but almost no sulfides.

Below the leached zone is a secondary enriched zone which is well developed to at least the No. 2 level, 56 feet below the No. 1 level. The principal ore mineral of this zone is sooty chalcocite; however, chalcopyrite is also present. On the No. 3 level, 18 feet below the No. 2 level, chalcopyrite that is lightly coated with bornite, is reported to be the predominant ore mineral. Therefore it is assumed that this level must be close to the primary zone. The No. 2 level was the deepest accessible level at the time Sample did his work.

It should also be noted that small amounts of platinum occur in the Green Mountain ore. Samples obtained from the gabbro dike indicate that the dike contains small amounts of platinum.

The DMEA has entered into a contract with the Amador Mining Company to explore the Green Mountain mine 100 feet below the No. 3 level. This work will provide valuable information concerning the possibilities of the deposit in the primary ore zone and thus test the ultimate potential of the deposit and district as well. However, the work has not yet progressed far enough to be able to make a definite statement regarding copper possibilities in the primary zone.

Production from the Green Mountain mine has been small. Total production from the start of operations in 1910 to 1942 is reported to have been approximately 5,000 tons of ore, of which 2,500 tons were shipped directly and the other 2,500 tons milled to produce 200 tons of concentrates. Ore and concentrate shipments have averaged about 18 percent copper, 1 ounce silver, 0.18 ounce gold, and 0.13 ounce platinum. A small amount of ore has been produced since 1942; however, production records for these shipments are not available.

There is no recorded production from the Revais Creek property, although the operator reports that a few sacks of high-grade gold ore were shipped in the early days.

The few trenches and shallow adits on the Revais Creek property were made before possible ore control factors were recognized at the Green Mountain mine. Had these controls been recognized at the time, it may have been possible to better locate these workings. The gabbro-quartzite contact has been cut in several places, but no great amount of work has been done along it. At best, only a few specks of malachite can be seen along the contact where exposed in accessible workings together with small amounts of malachite and chrysocolla coating shears and fracture planes within the gabbro. Also small amounts of disseminated pyrite and chalcopyrite were noted along a small shear within the gabbro in the southernmost adit in which the gabbro-quartzite contact is exposed. None of these copper showings within the gabbro are of any commercial interest or worthy of further exploration at this time.

Tabulated below are logs of the diamond drill holes drilled under the project. These logs were prepared by Mr. Mason Rankin, consulting geologist employed by the operator. It is necessary to use these logs because the core is known to have been somewhat mixed before it could be logged by DMEA personnel. This is discussed in detail in the section evaluating drilling; however, the core has been gone over carefully by DMEA personnel and differences in interpretation are discussed in the section immediately following log data.

Hole No. 1

Location: Approximately 800 feet north of principal Green Mountain workings (see accompanying map).

Bearing: S. 75° E. Inclination: -60°

Drilled by: D. C. McAllister, Jr., Butte, Montana

Footage Interval From To	Description
0-35'	Wash, no core.
35-58'	Light-colored even-grained quartzite.
58-88'	Gabbro, numerous quartzite inclusions (contact phase).
88-105'	Medium-grained fresh gabbro.
105-107'	Quartzite.
107-140'	Contact phase, gabbro with quartzite inclusion, some resorption and recrystallization.
140-145'	Structure? Core recovery very poor, some quartzite gouge.
145-201'	Quartzite, generally micaceous, somewhat altered and metamorphosed. Core recovery from 170' to 201' very poor, possibly due to fracturing in the quartzite.

Assay Log Sludge - Hole No. 1

Assayer: McCarthy Laboratories, Butte, Montana

Footage Interval From To	Au Ounce	Ag Ounce	Cu Percent
140-145'	Tr	Tr	Tr
174-179'	Tr	Tr	0.03
184-189'	Tr	Tr	0.02
179-201'	Tr	Tr	0.02

Hole No. 2

Location: Approximately 400 feet north of Hole No. 1 (see accompanying map).

Bearing: S. 75° E. Inclination: -60°

Drilled by: D. C. McAllister, Jr., Butte, Montana

Footage Interval From To	Description
0-26'	Wash, no core.
26-167'	Quartzite, light-colored, even-grained.
167-175'	No core, well-mineralized structure. Very high gold values associated with sulphides and iron oxides, carbonates as shown in sludge.
175-204'	Gabbro.
204-222'	Largely quartzite. Some irregular gabbro contacts.

Assay Log Sludge - Hole No. 2

Assayer: McCarthy Laboratories, Butte, Montana

Footage Interval From To	Au Ounce	Ag Ounce	Cu Percent	Pt Ounce
149-160'	Tr	0.2	0.05	
160-167'	0.01	0.02	0.02	
167-175'	40.64	4.6	0.45	0.085
175-185'	Tr	0.1	0.02	

Rankin, in his report to Mr. Warren summarizing the results of the drilling project, states: "Interpretation of Hole No. 1 is complicated by the presence of numerous quartzite blocks and fragments, xenoliths, within the gabbro. Some of these have been resorbed, making positive identification of rock type difficult."

DMEA personnel not only experienced difficulty in megascopically distinguishing rock types in sections of core from the No. 1 hole, but also in sections of core from the last 50 feet of the No. 2 hole. The reason for this is that megascopically there appears to be a gradation in rock type from quartzite to gabbro. Small dark spots or splotches up to a centimeter in diameter are developed in some of the quartzites. The more numerous these spots or splotches become in the quartzite the more difficult it is to megascopically distinguish the rock type as it takes on a gabbroic appearance. Rankin attributes the gradational effect to assimilation ("resorption") of the quartzite by the gabbro magma. This is a reasonable explanation of the features that can be seen megascopically. Thin sections, however, show the small dark spots or splotches to be incipient clusters of biotite crystals forming in the quartzite. It appears that these clusters were developed by thermal metamorphism of an impure quartzite. Thin-section study of one specimen from the No. 2 hole, logged as gabbro by Rankin, was determined as thermally metamorphosed quartzite instead of gabbro.

It should be pointed out that this lithologic problem is more academic than practical; however, it does complicate interpretation of drilling results. As thermal metamorphism can produce a rock which megascopically has a gabbroic appearance, it is sometimes difficult, in drill core, to distinguish thermally metamorphosed wall rock and quartzite inclusions within the dike, from the dike itself. This is the case with the No. 1 hole; however, as no ore-bearing structure was cut within the limits of where it was projected, the hole is believed to have served its purpose. The second hole, however, did encounter an ore-bearing structure at the quartzite-gabbro contact. It may be that this recognized contact is not the actual contact between quartzite and gabbro, but at least it is a contact between quartzite and a gabbroic appearing rock, and the target to be explored by the contract project.

The high gold assay from the No. 2 hole was obtained from a sludge sample taken from an 8-foot drill run at the quartzite-gabbro contact. The operator had this sample assayed by McCarthy Laboratories, Butte, Montana, and it showed 40.64 ounces gold, 4.6 ounces silver, 0.085 ounce platinum, and 0.45 percent copper. The Field Team obtained a portion of this sample from the operator, which was checked under the binocular microscope. As expected, the sludge contained fragments of ground quartzite and gabbroic appearing rock. In addition, there was a considerable amount of limonitic material, a few grains of pyrite, one tarnished grain identified as either pyrite or chalcopyrite, and a few flakes and specks of gold. Some iron filings were also noted; these probably were from the drill rods. In his report Rankin also notes the occurrence of galena and carbonate. When the binocular work was finished, the sample was sent to the Washington Technical Laboratories, Spokane, Washington, for check assay on the gold and copper.

This check assay showed 92.8 ounces gold, and 0.7 percent copper. The driller's daily log, as well as a log of the core prepared by Mason Rankin showed no core was recovered for this section of hole. However, when the core was gone over by members of the Field Team, 5.7 feet was observed for this section. This core was split and half sent for assay. The assay showed no gold and 0.1 percent copper.

It should be pointed out that the core was poorly handled and stored by the operator. The driller originally placed the core in boxes belonging to themselves; however, as the operator would not purchase these boxes or provide others, the driller required the boxes to be returned. The operator in turn then stored the core on narrow shelves in an old shack. On the shelves, the core was separated by twigs and small branches of trees. Although Field Team personnel again placed the core in boxes before attempting to log it, a certain amount of mixing was unavoidable. The core is now in the U. S. Bureau of Mines Core Library at Albany, Oregon.

It is apparent that the second drill hole encountered a mineralized zone containing high gold values and minor amounts of copper, silver, and platinum. The spectacular gold value probably can be discounted, but the position of the structure with respect to the quartzite-gabbro contact and the presence of gold, copper, silver, and platinum shows there is a similarity between the Green Mountain and Revais Creek Copper deposits.

Summary of Factual Data

Under the exploration project a total of 20 hours of bulldozing was done under Stage A at a unit cost of $16.00 per hour, including transportation of bulldozer. Under Stage B of the project, 423 feet of diamond drilling was completed in two holes at a unit cost of $7.00 per foot.

The contract amount was $21,285 with Government participation at 50 percent or $10,642.50. A total of $3,531 was spent on the project, and the Government's share was $1,765.50.

There was no production from the project during the exploration.

No equipment or supplies were purchased for the project.

Discussion of Conclusions

There were no unusual operating difficulties encountered in performing the contract work. The bulldozer used in Stage A of the work proved inadequate, and it was decided to terminate this phase of the project and diamond drill instead.

The operator had some difficulty in financing his share of the work. Although a technical consultant planned the drilling program for the operator, actual supervision of the work was left to the operator. Not being an experienced miner or driller, the operator's supervision proved to be rather inadequate.

The spectacular gold values obtained from diamond drill hole No. 2 probably can be discounted; there may even be some question as to the validity of such a sample as there is no core for these sections. However, the presence of gold, copper, silver, and platinum indicates that there is a similarity between the Green Mountain and Revais Creek deposits.

Undoubtedly, from the operator's viewpoint, the high-grade gold encountered in the second diamond drill hole merits investigation by mine opening; however, Government participation in such work is not considered warranted. It is now believed that exploration of the Revais Creek property should be contingent upon the results of DMEA work at the neighboring Green Mountain mine. Should this work prove successful, then further exploration at the Revais Creek property would be warranted. It is believed that additional diamond drilling of the contact area should be the first step in any future exploration program. This could be followed by mine openings, if conditions warranted. We believe the best way to explore the contact area by mine openings would be to drift on the gabbro-quartzite contact at depth from the Green Mountain mine, provided that satisfactory arrangements could be made with the owners of this property. If such arrangements could not be made, it would then be necessary to sink a shaft at the Revais Creek property.

The project was unsuccessful in finding significant copper mineralization and no certification of discovery is recommended.

Enclosure 1
Distribution:
DMEA(4)
USBM(5)
USGS(SRO)
Docket
Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

- 5 1954

March 31, 1954

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

Re: Docket No. DMEA-1486 (copper)
J. E. Hall
Revais Creek Copper property
Sanders County, Montana
Contract No. Idm-E162

Dear Mr. Selfridge:

In reply to your letter of March 24, this is to advise you that the Field Team report on the Revais Creek property is now in draft form and will be sent to you shortly. We have asked the operator for a final report but have received none and we doubt seriously whether, even if we obtain a report, it would be very informative. We, therefore, are inclined to waive this requirement.

Any future examination of the Revais Creek property will be made in conjunction with a regular inspection of the Green Mountain property now being operated by the Amador Mining Company under Contract Idm-E251 (amended). We do not contemplate a formal examination, as pointed out to Mr. Hall in our letter of February 24, unless an application is made, but we would be willing while our men are in the vicinity to have them stop in and see what new work Mr. Hall may have done.

Sincerely yours,

A. E. Weissenborn

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

cc: USBM(2)
Quinlan

urname
Docket copy

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

MAR 24 1954

Ellis
Selfridge
Johnson
Matthews

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

Re: Docket No. DMEA-1466 (Copper)
Contract No. Idm-E162
J. E. Hall
Revais Creek Copper property
Sanders County, Montana

Dear Mr. Weissenborn:

Reference is made to our letter to you of December 24, 1953, at which time we stated that we had not received the final reports of the Operator and the Field Team pertaining to the captioned contract. Our records do not reveal that these reports have been received. We would appreciate receiving these reports in order that our records may be complete.

Meanwhile, we have noted your letter to the Operator, dated February 24, 1954, copies of which you forwarded to this office, regarding a possible future examination of this property by one of your field men.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

APPROVED:

J. H. Hedges
Member, Bureau of Mines (JHB)

Philip W. Guild
Member, Geological Survey (JHB)

EWEllis/gla
3-23-54
cc to: Adm. Reading File
Operating Committee
Docket
Messrs. CHJohnson, Rm. 3621
ARKinkel, Jr., Rm. B-242A, GSA
Code 700

R.C.B. 3-24-54

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 1 - 1954

February 24, 1954

Mr. J. E. Hall
2539 Jefferson Avenue
Ogden, Utah

Re: Docket No. DMEA-1486X (Copper)
J. E. Hall
Sanders County, Montana
Contract No. Idm-8162 (Terminated)

Dear Mr. Hall:

This is in reply to your letter of December 29, 1953, regarding reopening of the subject contract.

We were pleased to hear that you completed additional work at the property last summer and are planning to do more in the near future. However, we regret to advise that the Defense Minerals Exploration Administration cannot consider participating in additional work at this time on the basis of present knowledge of the deposit.

Once a contract has been terminated, it is extremely difficult to reopen it without sufficient justification for so doing. Your description of the small high-grade ore lense uncovered in the trench is interesting, however, in our opinion it does not constitute sufficient evidence for reopening of the contract. We would like to make clear that before the Government can consider reopening or negotiating a new contract much more evidence is needed regarding the copper possibilities of your property. This evidence might be the uncovering of a good copper-bearing ore structure on your property which, in the Government's opinion, merits further work, or a significant discovery of major importance on an adjacent property.

We are interested in the work you performed last summer and, therefore, plan to have a member of our field staff inspect it when he is in the district and with your permission we will instruct our field men to look in on your property from time to time next summer when they happen to be in the district.

By Field Team, Region II

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

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

cc: DMEA (2) w/cys incoming
USBM (2) " "
Quinlan " "

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 1 - 1954

Docket No. IMA-1486X
Contract No. Idm-162
J. E. Hall
2539 Jefferson Ave.
Ogden, Utah
December 29th, 1953

United States Dept. of Interior
Defense Minerals Administration
Bureau of Mines
South 157 Howard Street
Spokane, Washington
Attention:
Mr. A. E. Weissenborn, Executive Officer,
DMEA, Field Team Region LL

I am herewith enclosing a copy of last Criteria letter of report to you in connection with the above contract. Since that time there has been some new developments that I would like to report to your office.

The bulldozing operation which was done and approved by the DMEA as well as Diamond Drill Hole No 2, were both on a certain claim known and described as the Lucky Strike Claim on Revais Creek, Sanders County, Montana, Project IDM-E162.

This last summer we completed several days of bulldozing operation, approximately 300 ft a little South of due East of Diamond Drill Hole, No. 2. This bulldozing was a cross cut North and South of an original discovery tunnel at an approximate elevation of 3,170 ft. and it disclosed a copper vein that was approximately 4 feet wide and 10 feet in length at four foot depth.

Of this new discovery we have ore that pick samples assays $54.50 per ton (10½% copper). mine run clear cross the vein sampling gives a value of $35.00 per ton.

I intend to go ahead and develop this particular new discovery and I am very much concerned to know if the DMEA would be interested in opening up this Loan Contract, if after further development your engineers would consider such development profitable.

I wish you would please advise me in detail in this connection.

Yours very truly

J. E. Hall

J. E. Hall

JEH/hc
encl.

C
O
P
Y

Docket No. DMA-1486X
Contract No. Idm-E162
J. E. Hall
2539 Jefferson Ave.
Ogden, Utah
February 15, 1952

United States Dept. of Interior
Defense Minerals Administration
Bureau of Mines
South 157 Howard Street
Spokane, Washington

Attention: Mr. A. E. Weissenborn, Executive Officer, DMEA, Field Team, Region II

I am submitting herewith the recent report of Mason W. Rankin, Mining Geologist on the Revais Creek, Sanders County, Montana, project, Contract No. Idm-E162, also some other information is enclosed herewith.

CRITERIA

The #1 and #2 Diamond Drill holes recently completed on Contract Idm-E162 have been, I believe, fully reported under dates of January 15th and January 28, 1952. There was also some descriptive material contained in the letters of above dates so I wish to give you a little more of a complete resume of the January progress report.

The Diamond Drilling Operation on this project was carried out perhaps in a most unsatisfactory manner because the operators were not versed, skilled or experienced and above all were not careful in their obligation to the government or operator who was paying them their fees.

In hole #1 the drill runner drilled south 70° in place of 75 as he was instructed to do and at 61° angle in place of 60. This, of course, was no doubt due to carelessness in, first, proper setting his drilling machine and, second, in not having the machine tied down to a stationary position. The drilling was so loose that the core recovery was very poorly obtained. The drilling machine was never solid down to the ground as it should have been and consequently broke up the core in very small pieces and a big part of the sludge was casing filings that was worn off rods and casing.

So inasmuch as hole #1 could not be put down any further than 201 feet because they had lost one string of casing, one string of rods and a small and large Diamond Drill bit (all left in the Diamond Drill hole #1) and because they could not go any further, this hole was abandoned with permission of Engineer Quinlin, however, this was a long way from being a fair test.

In hole #2 we experienced very much the same difficulties throughout. The recovery in both ore and sludge was very unsatisfactory. It was impossible to sell the Diamond Drillers the idea that they should get anything except depth and a quick job poorly executed.

However, according to geologist Rankin's report, original herewith attached, you will notice that in the last paragraph his recommendation suggests sinking of a vertical shaft near the site of hole #2 and then making a cross cut to the vein and you will notice also throughout this report that Mr. Rankin has

indicated that he is not at all discouraged with the fact that the copper content which primarily we are most interested in happens to be a minority showing, because as the geologist indicates, this whole district, all the property immediately adjoining this project, has good copper showing and I heartily agree with Mr. Rankin that we have all the opportunity in the world to have at least as much copper throughout this area as they have in the property immediately adjacent to this development.

You will notice that Engineer Rankin's other suggestion is that short holes would be likely to discovery or reveal the presence of ore in the immediate vicinity of the copper disseminated in the gabbro dike which was unearthed and exposed, by recent bulldozer operations.

You will notice also that the second suggestion would be further Diamond Drilling south of Diamond Drill hole #1 if your department felt this necessary, however, after careful consideration due examination and advice of a mining geologist and two competent engineers, Mr. James Quinlin and Mr. Mason Rankin, I sincerely hope that you will agree with me after all these findings and evidences that the next step in this development undoubtedly would be the sinking of a vertical shaft at the site of Diamond Drill hole #2 and then cross cut to the vein of the drill hole incept which at that point incidentally shows from assays of McCarthy under January 30, 1952, gold content of an approximate 6 ft. recovery sludge showing 40.64 oz. of gold, 4.6 oz. of silver, and 0.45% of copper. Two reports from McCarthy assayers are also herewith attached to the report of mining geologist Rankin.

At this time no doubt your engineer, Mr. Quinlin, has had the opportunity to log the core and go over the sludge samples submitted to your office and will have certain definite ideas and recommendations to make in this connection.

If we are now permitted to go ahead with this program of sinking a shaft and cross cutting to the vein and then following south along the contact into the highly consentrated copper area, I will, however, be very glad to abide by your decision whatever it may be and proceed accordingly.

I feel certain that both your Mr. Quinlin and others connected with your office are and have given this project very serious consideration because of the fact that it is in a proven area and because of the fact that I believe with other engineers that we have one of the best chances in the entire state to have a real profitable and permanent copper mining development if we pursue this project from a scientific development program.

I respectfully submit the attached papers and reports, the assay reports and the geologist report for your careful considered opinion and recommendation that you suggest for further development. I would greatly appreciate your reply at the earliest possible date so that we can go ahead with the program as outlined by your office.

Yours very truly,

J. E. Hall

JEH/jt
Encls.

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

DEC 24 1953

Ellis
Chandler
Selfridge
K Johnson

Mr. A. E. Weissenborn
Executive Officer
[illegible] Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. [illegible]A-1[illegible] (Copper)
Contract No. [illegible]-162
J. [illegible] Hall
Nevada Creek Copper property
Lincoln County, Montana

Dear Mr. Weissenborn:

A review of the captioned contract reveals that the project was terminated by agreement after commencement but before completion of the work on January 21, 1953, and that final payment was made to the Operator on May 26, 1953. However, this office has not received the Operator's nor the Field Team's final reports.

In order to complete our records, we would appreciate receiving the final reports if they are now available.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (24B)

[illegible]:

J. H. Hedges (24B)
Director, Bureau of Mines

T. P. Thayer (24B)
Director, Geological Survey

EWEllis/gla/db
12-22-53
cc to: Adm. Reading File
Operating Committee
Docket
Messrs: C.H.Johnson, Rm. 3621
A.R.Kinkel, Rm. B-242A, GSA
Ellis

12-24-53

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

June 4, 1953

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

Re: Docket No. DMEA-1486 (Copper)
J. E. Hall
Sanders County, Montana
Contract Idm-E162

Dear Mr. Selfridge:

Attached are the original and two signed copies of a Termination of Exploration Project Contract by Agreement after Commencement but before Completion of the Work entered into between the Government and the subject Operator the 21st of January 1953.

Copies of this termination agreement have been distributed in the usual manner.

Sincerely yours,

A. E. Weissenborn

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

cee 6/12

Attachment

cc: USBM (2)
Quinlan

P.S. The agreement was sent to the Operator in January but only recently returned to this office, thus the long delay in forwarding it to you.

AEW

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
~~XXXXXXXXXXXXXXXXXX~~
So. 157 Howard Street
Spokane 4, Washington

May 15, 1953

Mr. Frank J. Roe
Attorney at Law
Law Building
55 West Broadway
Butte, Montana

DMEA 1986

Re: J. A. Hall property
Contract Idm-E162

Dear Mr. Roe:

Returned herewith are seven copies of forms for Assignment and Acceptance of Mr. Hall's DMEA contract which you recently forwarded to this office. These forms are being returned to you as the time limit on Mr. Hall's contract has expired and the contract is no longer considered to be in effect.

Mr. Hall has been advised that the contract has expired and has been advised to submit his final report concerning accomplishments and accounting of the contract.

Sincerely yours,

Thor H. Killagsard
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

cc: J. A. Hall
Ogden, Utah

USBM (2)
DMEA (2) ✓
Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

APR 3 1953

April 2, 1953

Mr. J. E. Hall
2539 Jefferson Avenue
Ogden, Utah

Re: Docket DMEA-1486X (Copper)
J. E. Hall
Sanders County, Montana
Contract Idm-K162

Dear Mr. Hall:

This will notify you that your DMEA contract on the Revais Creek Copper property, Sanders County, Montana, has expired. The contract was dated September 26, 1951, and was to extend for 18 months, thereby expiring on March 26, 1953.

Your attention is directed to Section 14 of the contract which specifies that upon completion or termination of the contract the Operator shall provide the Government with a comprehensive final report on the accomplishments of the project. You should also submit any contract bills for which the Government has not already paid its pro-rated share. This information will be necessary to formally close out the contract.

Additional exploration work that you may have planned for your property, and in which you wish DMEA to participate, will of course be subject to a new application for another and separate contract. If you should decide to submit another application it will be forwarded to Washington, D. C., for consideration.

By DMEA Field Team, Region II

A. E. Weissenborn, Executive Officer
(U. S. Geological Survey)

M. E. Volin, Member
(U. S. Bureau of Mines)

cc: DMEA (2)
USBM (2)
Hosterman

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

January 22, 1953

Mr. J. E. Hall
2539 Jefferson Avenue
Ogden, Utah

Dmea
1486

Re: Contract Idm-E162

Dear Mr. Hall:

Enclosed are several copies of a mutual agreement termination notice pertaining to your DMEA contract in Sanders County, Montana. If the terms of this notice meet with your approval please sign all copies, retain one copy for your files, and return the original and other copies to this office.

We have delayed sending this notice to you thinking that the Kootenay Copper project might advance far enough to reveal information that might be helpful in formulating other exploration plans for your property. However, little has been done at the Kootenay Copper project and we therefore believe your contract should now be terminated rather than to wait any longer. If further work at the Kootenay Copper property, or work you might do on your own property, proves encouraging you might make application for another contract. In such an event we would certainly be glad to review your proposal.

In addition to the signed termination notices, we suggest that you send us a short narrative outlining what DMEA contract work was done on your property. Such a report, you will recall, is specified in the contract. You should also bill us for any contract expense for which you have not been paid the Government's share and support such bills with proper receipts, etc. With this information on hand we can proceed with the final audit and closing out of your contract.

Your attention to these matters will be appreciated.

Sincerely yours,

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

Enclosure
cc: DMEA (2)
USBM (2)
Field man

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~XXXXXXXXXXXXXXXXXXXX~~
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 10 1952

November 2, 1952

Memorandum

To: DMEA Field Team, Region II

From: John W. Hosterman, Geologist, U. S. Geological Survey

Subject: Periodic Inspection - Contract Idm E162 - Revais Creek Copper, Sanders County, Montana - Docket DMEA 1486 (copper).

I visited this project October 23, 1952. The project was inactive. No one was available to find out why no work was being done.

I suggest that steps be taken to terminate the contract. However, if the adjoining Kootenay Copper property, currently undergoing an exploration, should show favorable results, then a new exploration program may be advisable for the Revais Creek Copper property.

John W. Hosterman

Distribution:
DMEA - Orig. + 3
USBM (2)
Hosterman
Docket

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

So. 157 Howard Street
Spokane 4, Washington

September 10, 1952

Mr. J. E. Hall
2539 Jefferson Avenue
Ogden, Utah

Re: Docket DMA-1486X
Contract Idm-E162

Dear Mr. Hall:

This will acknowledge receipt of your letter of August 28 in which you request permission to delay exploration work on your property in Montana. We have given this matter considerable thought and have decided that we cannot approve such a delay. It would seem to us that if the Kootenay Copper property, currently undergoing exploration, should show encouraging results then an entirely new type of exploration program should be proposed for your property. It is very possible diamond drilling would not be satisfactory but that an entirely different approach would be needed. Furthermore, we do not like to have an inactive contract on our rolls as it means that money is being tied up which could otherwise be expended on other exploration contracts. It is therefore recommended that you either continue the work called for in the present contract or that you terminate that contract and await the results of the Kootenay Copper exploration program. If those results are encouraging, a new contract on your property could be considered; otherwise no future work would be warranted.

We are enclosing copies of an Assignment of Exploration Project Contract form. Please note that these forms are useable only to assign your contract to another party and that they are not useable in the assignment of a lease. The assignment of your lease to the Montana Copper King Company, Inc., would have to be drawn up in a lawyer's office. The only item of such an assignment in which we would be interested in would be that the assignee should assume all obligations of the present DMEA contract. In other words, the Montana Copper King Company, Inc., would have to agree to repay the Government in the event the present contract proves successful and ore was produced from that area concerned by the contract.

Sincerely yours,

Thor A. Killsgaard
For: A. J. Weissenborn
Executive Officer, DMEA
Field Team, Region II

cc: DMEA (2)
USBM (2)

5/22/52 gla

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

WASHINGTON 25, D. C.

So. 157 Howard Street
Spokane 4, Washington

May 12, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAY 1 8 1952

Mr. Frank E. Johnson
Chairman, Operating Committee
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMA-1486X (Copper)
Exploration Project Contract Idm-E162
J. E. Hall, Revais Creek Copper Property,
Sanders County, Montana

Dear Mr. Johnson:

This is to acknowledge your letter of April 28, 1952, concerning additional diamond drilling of the Revais Creek Copper property, Sanders County, Montana.

On April 11, 1952, this office wrote the Operator broaching the matter of additional drilling before undertaking the proposed underground exploration program. The Operator replied by letter on April 14, 1952, expressing his willingness to participate in further drilling, and requested that Mr. M. W. Rankin, Consulting Geologist, be retained to locate any proposed holes.

At the present time Mr. Hall is attempting to organize a company to take over the property, and plans to transfer the contract to this company if it is acceptable to DMEA. Until the company is organized and has sufficient funds to accept obligations under the contract, no work is planned. It will probably be a month or more before work is resumed.

If no action is forthcoming in a reasonable time, it is suggested that the contract be terminated.

Sincerely yours,

Reviewed by
DMEA OPERATING COMMITTEE
5-21-52
(date) NB

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

cc: USBM

4/30/52 [illegible]

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

April 29, 1952

Memorandum

To: E. W. Ellis, DMEA

From: C. H. Johnson, Bureau of Mines

Subject: DMA 1486, (Idm-E162) J. E. Hall, Revais Creek Copper, Sanders County, Montana

I have studied Mr. Weissenborn's letter to you dated April 9, together with attached material submitted by Operator.

Under the circumstances, I would not recommend sinking a shaft to explore the supposed ore occurrence. The evidence of a sludge sample is unreliable at best; the conflicting statements about core recovery indicate that the core was mishandled in some way; the high gold value hardly justifies the expense of exploring an occurrence of low grade copper (0.5 percent) of unknown thickness by sinking a 150-foot shaft.

My recommendation would be to let the operator drill another hole to hit about the same spot, but this time see that he gets the core. If he cuts good ore, thus confirming the previous hole, try one or two more a little deeper. Then there might be something to justify a shaft-sinking project with DMEA support. If results are negative, he and the Government each will have saved $10,000.

C. H. Johnson
C. H. Johnson

Copy to Mr. Nelson, USGS
Minerals Division
C. H. Johnson
Base Metals Branch
Files

DEPARTMENT OF [illegible]
Defense [illegible]
APR 29 1952

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

April 29, 1952

Memorandum

To: Mr. B. W. Ellis

From: N. B. Nelson

Subject: IMA-1486, Contract Idn E162, J. E. Hall, Revais Creek Copper Property, Sanders County, Montana

Comment

This exploration project has changed from one involving copper, which , as reported was not conspicuous, to what may be a gold prospect.

The results of the drilling, while curiosity arousing, probably should not be taken too seriously because of the utter lack of check as between core and sludge samples.

As the distance to the vein is not great, 167 feet in No. 2, check drilling probably from the same setup is indicated. The results would tend to determine the chances of finding a copper-platinum rather than a gold mine at much less cost than the shaft sinking program.

N. B. Nelson

Ned B. Nelson
Geologist

700
FILE COPY
SURNAME:

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

AIR MAIL

APR 28 1952

Mr. A. H. Weissenborn
Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. DMA-1406X (Copper)
Exploration Project Contract Idm-162
J. P. Hall, Revais Creek Copper
Property, Sanders County, Montana

Dear Mr. Weissenborn:

We have your letter of April 9, 1952, concerning the results of the diamond drilling program, which was approved in Amendment No. 1 of the captioned contract.

We are not able to understand how it was possible to obtain such exceptionally high values in gold in the sludge samples and obtain no indications of gold in sampling the core obtained at the same horizon. We believe that it would be advisable, before proposing an exploration project to cover shaft sinking, to do sufficient drilling to verify the assay values of the sludge samples. This might be done by deflecting the drill bit at distances of 20 and 40 feet above the contact in the diamond drill hole that made the discovery and thus obtain two additional samples from the same general area.

As the objective of the Exploration Project Contract under consideration is the discovery of copper ore deposits and not gold, it might be advisable to drill to a greater depth than has been done. This should establish whether copper mineralization of commercial value is present below the zone of oxidation. If no copper mineralization (secondary or primary) of economic value is discovered in this additional drilling, we could not approve an amendment to provide additional funds for sinking a shaft and driving a crosscut and drifts to explore and develop a gold deposit.

In case significant copper values are discovered in the above proposed drilling, and additional funds were provided for the proposed underground exploration program, we believe that the shaft should be sunk inclined parallel to the contact

rather than vertically as now proposed. There may be some legal conditions that might make this impractical, but the suggestion is worthy of consideration by the Applicant and Field Engineer.

Sincerely yours,

(signed) FRANK E. JOHNSON

(JWB)

Chairman, Operating Committee

cc to: Adm. Reading File
Docket
Operating Committee
Messrs. C. H. Johnson, Rm. 3621
Ned Nelson, Rm. 4216 GSA
Ellis
Keller
Chambers, Rm. 2612

APPROVED:

J. H. Hedges (JHB)

For Bureau of Mines

G. M. Lemmon (GM)

For Geological Survey

S.H.
4-28-52

~~Mr. Ellis~~
~~Mr. Keller~~ EWP

Please note and return to me for contract file. gla

resumed

DMA-1486X 4-10-52

J. E. Hall, Green Mountain Property (Copper & Gold) Weissenborn advised by telephone, he had written memo re modifying of contract as applicant wanted to sink shaft to locate ore cut by diamond drill hole assaying some 15-20 oz. gold and ½% copper. He now plans to modify his proposal to applicant that another diamond drill be put down to check the high hole value.

FLK

Discuss Reg II 4/9 Mcd & Mgf. re Copper Corn.

4/22/52 gla

OFFICE OF THE ADMINISTRATOR

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

So. 157 Howard Street
Spokane 4, Washington

April 9, 1952

Air Mail

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 1 - 1952

Mr. Frank E. Johnson
Chairman, Operating Committee
Defense Minerals Exploration Administration
Department of Interior
Washington 25, D. C.

Re: DMA Docket 1486, Copper
Exploration Project Contract Idm-E162
J. E. Hall, Revais Creek Copper Property,
Sanders County, Montana.

Dear Mr. Johnson:

Enclosed are four copies of a letter from the Operator requesting additional funds for a proposed third stage to Exploration Project Contract Idm-E162. Also enclosed are four copies of a report by M. W. Rankin, Consulting Geologist for the Operator, supporting the new proposal.

The Revais Creek Copper exploration project is designed to prospect for commercial copper ore bodies similar to those found at the neighboring Green Mountain mine, Kootenay Copper Mines, Inc., DMEA Docket 1175. At the Green Mountain mine, ore occurs in narrow veins, chiefly in a fault along the hanging-wall contact of a gabbro dike with quartzite, forming what is known as the Contact vein or Contact fault. Ore shoots along the Contact fault are controlled by the intersection of subsidiary faults with the Contact fault and by changes in strike or dip of the Contact fault. The average grade of ore mined at the Green Mountain mine is approximately 18 percent copper, 1 oz. silver, 0.18 oz. gold, and 0.13 oz. platinum.

A two-stage exploration program was planned for the Revais Creek Copper Property: Stage A, 400 feet of dozer trenching to obtain evidence of structural control similar to the Green Mountain; Stage B, (upon the completion of Stage A to the satisfaction of the government) sink 150 feet on the vein. The estimated cost of Stage A, $885.00 and of Stage B, $13,200.00

Owing to the steep nature of the terrain, thickness of talus, and limitation of the dozer employed, the program outlined in Stage A was not completed. The evidence obtained by the partial completion of Stage A was inconclusive; therefore, it was deemed advisable to obtain the further evidence by a small diamond drilling program. The contract was amended to allow two diamond drill holes, the total length not to exceed 500 feet. The diamond drilling program has now been completed presenting an interesting problem for DMEA.

The first hole, drilled 800 feet north of the Green Mountain mine, proved a complete blank. The second hole, drilled 1,200 feet north of the Green Mountain mine, encountered high-grade gold at the contact. The sludge sample taken at the contact from a 8-foot drill run was assayed by the Operator and a part of the reject sent to this office. The sludge sample assayed by the Operator ran 40.64 ozs. gold, 4.6 ozs. silver, 0.085 ozs. platinum, and 0.45 percent copper; the reject sent to this office assayed 0.7 percent copper and 92.80 ozs. gold, of which 84.8 ozs. was free gold that did not pass a 100-mesh screen. A report by Mason W. Rankin, Geologist for the Operator, states that no core was recovered from this section. However, when the core was logged by this office, 5.7 feet of core was observed for this section. The core was poorly stored by the Operator, being placed on narrow shelves and separated by twigs in an old shack. This office placed the core in core boxes before attempting to log it. The 5.7 feet of core shown for this section was split and assayed. The assay results showed no ~~silver~~ gold and 0.1 percent copper.

The Operator now requests funds to sink a 147-foot vertical shaft and drive an 85-foot crosscut to intersect the diamond drill hole at the point of the high-grade gold showing. This is the most practical ~~and economical~~ program to reach this point. The estimated cost of this program is $25,770.00. The Operator has approximately $17,000 remaining under the present contract. An amendment could therefore be required to increase the contract by about $9,000.

From the Operator's viewpoint, additional diamond drilling could be done; however, in the event the results were disappointing or inconclusive, the high-grade gold encountered in the second drill hole would merit investigation by mine opening.

It may be pointed out that because of the lack of structural data in the vicinity of the property, further drilling will, for the most part, be blind.

It is apparent that the second drill hole encountered a mineralized zone containing high gold values with minor amounts of copper, silver, and platinum. The spectacular gold values probably can be discounted, but the position of the ore and the presence of gold, copper, and platinum shows that there is a similarity between the Green Mountain and the Revais Creek Copper deposits. Rankin describes the situation as follows: "It is apparent that the drill hole encountered a sizeable and well mineralized vein zone containing excellent gold values in association with some residual sulphides, but principally with fairly abundant oxidation products. Considering the extent of oxidation with consequent leaching, it is not surprising that the copper content (o.45 percent) is rather low. The presence of rather high grade gold ore shoots in near association, with copper ores in the nearby Drake mine is an established fact. Consequently it may be considered probable that copper will be found in considerably greater quantity at other points within the zone. The presence of platinum in the sample presents an additional similarity to the Drake mine mineralization."

It is recognized that Rankin's contention may be correct. However, because of the unusually high gold values it is felt that the DMEA might be criticized if it approved the ~~second~~ first phase of the work and therefore refer the matter to the Operating Committee for advice as to policy. Please advise by phone or teletype if possible.

Sincerely yours,

A. E. Weissenborn

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

Enclosures.

cc: USBM

Docket No. DMA-1486X
Commodity: Copper
Contract No. Idm-E162

J. E. Hall
2539 Jefferson Ave.
Ogden, Utah
March 3, 1952

United States Department of Interior
Defense Minerals Administration
Bureau of Mines
South 157 Howard Street
Spokane, Washington

Attention: Mr. A. E. Weissenborn, Executive Officer, DMEA, Field Team Region II

EXHIBIT "A"

I am herewith enclosing proposed Amendment No. 2, Contract No. Idm-E162, for your consideration and approval if agreeable. Step No. 1 for bulldozing 400 ft. of trench was promptly and successfully completed. Step No. 2 for two Diamond Drill holes approximately 423 ft. was promptly and successfully completed, and the next step that I respectfully submit for your consideration and approval would be as follows:

Step No. 3

A vertical shaft of approximately 147 ft. at site of Diamond Drill Hole No. 2 with a crosscut to the vein at the elevation of drill hole incept (85 ft.) which should pick up the mineralized vein which was encountered at a depth of between 167 and 175 ft. which shows the assay report of 40.64 oz. of gold, 4.6 oz. of silver, 0.45% of ~~lead~~ copper and 0.085% of platinum.

A full explanation of the engineers reason and expert advice on making this suggestion is herewith enclosed for your information and records and this is the report of Mr. Mason W. Rankin under date of February 13, 1952, marked Exhibit No. 1. Also, assay reports supporting this information from McCarthy Laboratories, 27 West Granite St., Butte, Montana, are herewith attached marked Exhibit No. 2.

Step No. 3 (continued)

To be immediately carried out as approved by DMEA.

1.	Sinking vertical shaft 147 feet @ $100 per ft. (Includes all costs not specified elsewhere.)	$14,700.00
2.	85 foot crosscut to vein at the elevation of No. 2 Diamond Drill Hole intercept @ $35 per ft.	2,975.00
3.	Operating equipment to be purchased or rented	2,125.00

Project No. VMA-1A-1B1
Current Status: Dormant
Contract No. IDM-1B22

G. L. Hall
2727 Jefferson Ave.
Ogden, Utah
March 8, 1962

United States Department of Interior
Defense Minerals Administration
Bureau of Mines
South 167 Howard Street
Spokane, Washington

Attention: Mr. A. E. Wolsenborn, Executive Officer, DMMA, Field Team Region II

EXHIBIT "A"

I am herewith enclosing proposed Amendment No. 2, Contract No. IDM-1B22, for your consideration and approval if agreeable. Step No. 1 for building 400 ft. of trench was promptly and successfully completed. Step No. 2 for two Diamond Drill holes approximately 422 ft. was promptly and successfully completed, and the next step that I respectfully submit for your consideration and approval would be as follows:

Step No. 3

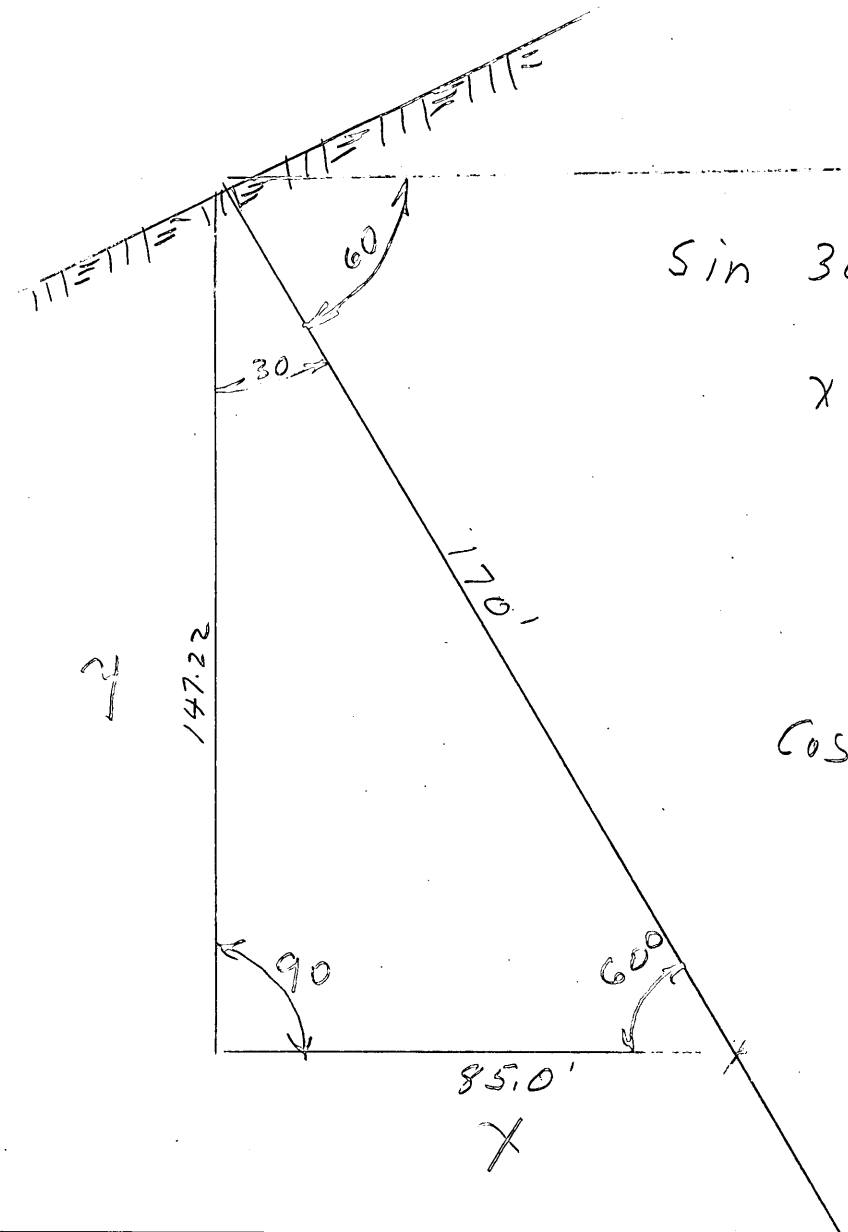
A vertical shaft of approximately 147 ft. at side of Diamond Drill Hole No. 2 with a crosscut to the vein at the elevation of drill hole number (25 ft.) which should pick up the mineralized vein which was encountered at a depth of between 167 and 172 ft. which shows the assay report of 40.34 oz. of gold, 4.5 oz. of silver, 0.45% of lead and 0.0835% of platinum.

A full explanation of the engineers reason and expert advice on making this suggestion is herewith enclosed for your information and records and this is the report of Mr. Mason W. Rankin under date of February 13, 1962, marked Exhibit No. 1. Also, assay reports supporting this information from Moberly Laboratories, 27 West Granite St., Butte, Montana, are herewith attached marked Exhibit No. 2.

Step No. 3 (continued)

To be immediately carried out as approved by DMMA.

1. Sinking vertical shaft 147 feet @ $100 per ft. (Includes all costs not specified elsewhere.)	$14,700.00
2. 55 feet crosscut to vein at the elevation of No. 2 Diamond Drill Hole inclusept @ $45 per ft.	2,475.00
3. Operating equipment to be purchased or rented	2,125.00



$$\sin 30^\circ = \frac{x}{170}$$

$$x = 170 \times .500$$

$$\cos 30^\circ = \frac{y}{170}$$

$$y = 170 \times .866$$

$$y = 147.22$$

4.	Buildings to be constructed	$3,300.00
5.	Supervision and engineering	2,670.00
	Total:	$25,770.00

This page together with the exhibits herewith attached outlines the proposed amendment to Contract Idm-E162 and I believe is a detailed outline of what geologist Mason W. Rankin would personally recommend for this project; and I believe if your own engineer, Mr. James Quinlin, will go over this in detail with your office that he will also substantially recommend or approve this procedure or something very similar in nature for the best interest of all concerned in the development of this project.

I sincerely hope that your office will give this your immediate consideration because time is an important element in getting this exploration project completed by early Summer. I especially ask your careful consideration of the buildings to be constructed as we have absolutely no facilities of this nature at the present time.

Yours very truly,

J E Hall

J. E. Hall

Project No. 1001-14887
Geneva City: Geneva
Contract No. 1Gm-1102

4. Buildings to be constructed	15,870.00
5. Supervision and engineering	5,040.00
Total:	38,770.00

This page concerns with the activities personally attended and the progress made by Contract 1Gm-1102 and I believe is a detailed outline of what participated there. Works were personally reconnoited by this project; and I believe if your own engineer, Mr. Jones engineer, will go over this in detail with your office that he will also substantially recommend or approve this procedure or something very similar in nature for the best interest of all concerned in the development of this project.

I sincerely hope that your office will give this your immediate consideration because time is an important element in getting this exploration project completed by early Summer. I especially ask your careful consideration of the buildings to be constructed as we have absolutely no facilities of this nature at the present time.

Yours very truly,

L. A. Hill

Docket No. DMA-1486X
Commodity: Copper
Contract No. Idm-E162

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "B"

Buildings to be constructed

Compressor house	8' x 10'	$500.00
Hoist house	12' x 15'	700.00
Blacksmith and tool shed	10' x 12'	600.00
Bunkhouse	30' x 15'	900.00
Mine office	10' x 12'	600.00
		$3,300.00

Docket No. UTA-1886X
Commodity: Copper
Contract No. Idm-9182

Exploration Project Contract, Pavais Creek

Copper Property, Sandoro County, Montana

"E"

Buildings to be constructed

Carpenter House	8' x 10'	$800.00
Hoist House	12' x 18'	700.00
Blacksmith and tool shed	10' x 12'	600.00
Bunkhouse	30' x 18'	900.00
Mine office	10' x 12'	500.00
		$3,500.00

Docket No. DMA-1486X
Commodity: Copper
Contract No. Idm-E162

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "C"

Operating Equipment

To be purchased

	Cost
1 mine car, 12½ cu. ft. (used)	$50.00
miscellaneous small tools	100.00
Total..	$150.00

To be rented

	Rental per Month	Number of Months	Total Rental
1 compressor, 210 cfm, gas	$250.00	5	$1,250.00
1 Jackhammer (I.R. 60#)	45.00	5	225.00
1 water pump (Cameron #9)	25.00	5	125.00
1 air hoist (Tugger 2000#)	75.00	5	375.00
			$1,975.00

To be furnished

None

Total $2,125.00

Project No. RMA-1680X
Commodity: Copper
Contract No. IGP-8162

Exploration Project Contract, Navajo Creek

Copper Property, Sandoval County, Montana

EXHIBIT "G"

Operating Equipment

To be purchased	Cost
1 mine car, 15 cu. ft. (used)	$80.00
miscellaneous small tools	100.00
Total..	$180.00

To be rented

	Rental per Month	Number of Months	Total Rental
1 compressor, 210 cfm, gas	$280.00	5	$1,250.00
1 jackhammer (I.R. 60%)	45.00	5	225.00
1 water pump (Cameron #3)	25.00	5	125.00
1 air hoist (Tugger 2000)	75.00	5	375.00
			$1,975.00

To be furnished

None

Total $2,125.00

Docket No. DMA-1486X
Commodity: Copper
Contract No. Idm-E162

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "D"

Labor and Supervision

2 miners	$1.50/hour
1 mucker	1.50/hour
compressor man-timber framer	320.00/month
Foreman	320.00/month
Consulting Engineer ($\frac{1}{4}$ time)	500.00/month

Docket No. DRA-1985X
Commodity: Cu ppr
Contract No. Ide-8182

Exploration Project Contract, Nevada Creek

Copper Property, Sanders County, Montana

EXHIBIT "D"

Labor and Supervision

2 miners		$1.50/hour
1 mucker		1.50/hour
compressor man-timber framer	320.00/month	
Foreman	320.00/month	
Consulting Engineer (¼ time)	500.00/month	

Docket No. DMA-1486X
Commodity: Copper
Contract No. Idm-E162

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "E"

None

None

1486

MONTANA

SANDERS COUNTY

February 1, 1952

J. E. Hall, Idm-E162, Cu

50-50 of $21,285.00

18 months

This is a two-stage project.

1. 400 feet of bulldozing a copper-bearing outcrop.

2. Pending on favorable results of Stage 1, a 150-foot inclined shaft will be sunk on the vein.

The bulldozing program was not completed owing to nature of the terrain, and to a defective bulldozer. The contract was amended to include 500 feet of diamond drilling in two holes. The first hole gave negative results; however, according to the operator, the second hole yielded an abnormally high gold assay of 40.64 ozs. Au per ton through a sludge sample distance of eight feet. The validity of this report is questionable and is being checked closely.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane 4, Washington

January 3, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 7 1952

DMA-1486X

Chairman Operating Committee
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Re: J. E. Hall Property
Exploration Project Contract
Idm-E162

Dear Sir:

Enclosed are three copies of an amendment to the subject contract, and of an approval for a subcontract.

Additional copies have been sent the Operator and Fiscal Officer.

Yours very truly,

A. E. Weissenborn KG
A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosures

CC: USBM, Albany

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 2[illegible] 1952

Rec'd by Op. Com. 1/22/52.

FILE COPY
SURNAME:

410

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

NOV 7 1951

a.g.c.

Selfridge.
FE Johnson

Contract Service Section
General Accounting Office
Fourth Floor - New GAO Building
Washington 25, D. C.

Re: Docket No. DMA - 1486X
J. E. Hall, Owner and Lessee
The Lucky Strike Claim and
Alice Lozeau Indian Allotment
Exploration Project Contract Idm-E162

Gentlemen:

Enclosed for recording in your office is the original, signed copy of an Exploration Project Contract with attached, signed Subordination Agreement executed between the Operator named in the above reference and the Government of the United States.

Sincerely yours,

(signed) FRANK E. JOHNSON (fw)

Acting Director
Production Expansion Division

87 1117

Attachment
10/29/51
G/Selfridge/meb
cc to: Admr's Reading Files
Reports & Records
Messrs. Mittendorf/Clund
G. Selfridge
Docket

FILE COPY 250
SURNAME:

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

NOV 5 1951

Johnson
McKnight
Bishop
Tyrony
Thayer
Gate
F. Johnson

L. A. Hall
No. 295
Helena, Montana
Oil & Gas Application

Hon. Lee Mansfield
House of Representatives
Washington 25, D. C.

My dear Mr. Mansfield:

This will acknowledge your letter of October 11, 1951 requesting information with respect to the application of Mr. L. A. Hall, No. 295, Helena, Montana, filed with the Lakeside field office. Mr. Hall's letter is returned herewith.

We are writing the field office requesting information concerning the status of the application and shall be pleased to advise you as soon as this information is obtained.

If there is of further assistance to you at any time, please do not hesitate to call upon me.

Sincerely yours,

(signed) FRANK E. JOHNSON (for)

Acting Administrator

87 11/5

Enclosure

F. J. McNiko
10/25/51

cc: Administrator
Docket File - Reports & Records Code 710
L. Lyon
Bishop
McKnight
F. Johnson
Copies to Mr. A. A. Eisenhorn Anglon II

350

FILE COPY
SURNAME:

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

NOV 2 1951

Hamilton
Johnson
McKnight
Bishop
Thayer

L. A. Hall
Box 295
Helena, Montana
Loan application

Mr. A. F. Weissenborn
Executive Officer DMA Region II
South 157 Howard Street
Spokane 8, Washington

Dear Mr. Weissenborn:

Attached is copy of Mr. Hall's letter of October 1[illegible], 1951 to the Honorable Mike Mansfield and a copy of letter from the Acting Administrator of Defense Minerals Administration with reference to this subject.

Will you please inform us promptly as to the status of this matter.

Very truly yours,

SIGNED

Tom Lyon, Director
Supply Division

87112

Enclosures

JCHAMILTON:ks
10/29/51

cc: Administrator
2 copies for Mr. Weissenborn (1 original)
Reports & Records Code 210
Bishop
McKnight
G. Johnson
T. Lyon

FILE CO
SURNAME:

410

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

Selfridge
F. Johnson

NOV 2 1951

Mr. A. E. Weissenborn
Executive Officer
Region II
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. DMA - 1486X
J. E. Hall, Owner and Lessee
The Lucky Strike Claim and
Alice Loseau Indian Allotment
Exploration Project Contract Idm-E162

Dear Mr. Weissenborn:

Enclosed please find the two copies of a Subordination Agreement which you forwarded to this office in your letter of October 23, 1951, with the four copies of the subject Exploration Project Contract. One copy should be given to the Operator and one copy is for your files. These should be attached to the respective copies of the contract.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director
Production Expansion Division

Enclosures

10/29/51
GSelfridge/meb
cc to: Admr's Reading Files
Reports & Records
Messrs.Mittendorf/Olund
G. Selfridge
Docket

OFFICE OF THE ADMINISTRATOR

DEFENSE MINERALS ADMINISTRATION
WASHINGTON, D. C.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

OCT 26 1 27 PM '51

DEPARTMENT OF THE INTERIOR
RECEIVED
OCT 2 6 1951
Defense Minerals Administration,
Production Expansion Division.

So. 157 Howard Street
Spokane 4, Washington

October 23, 1951

Mr. C. O. Mittendorf, Director
Production Expansion Division
Defense Minerals Administration
Washington 25, D. C.

Re: Docket No. DMA-1486X, Copper
J. E. Hall, Owner and Lessee
The Lucky Strike Claim and
Alice Lozeau Indian allotment
Exploration Project ContractIDM-E162

Dear Mr. Mittendorf:

Enclosed are the original and three signed copies of the subject contract with attached signed subordination agreements. The two extra subordination agreement copies are also enclosed.

One copy of the contract has been given to Mr. Hall and one copy has been retained at this office.

Sincerely yours,

Elton A. Youngberg

Elton A. Youngberg
For: A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

Enclosures

MIKE MANSFIELD
1ST DISTRICT, MONTANA

RECORDS

COMMITTEE:
FOREIGN AFFAIRS

Congress of the United States
House of Representatives
Washington, D. C.

October 19, 1951.

Mr. W. C. Schroeder,
Administrator of DMA,
Interior Department.

Dear Mr. Schroeder:

DMA 3-3

I am enclosing letter I have received from W. A. Hall, Box 295, Helena, Montana, relative to his application which he has filed.

I would appreciate your looking into this matter and advising me what action has been taken on it. Please return the enclosure for my files.

Thanking you and with best personal wishes, I am

Sincerely yours,

Mike Mansfield

OFFICIAL FILE COPY

To	Init.	Date
350	CC	10/23
210		

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D. C.
OCT 22 11 04 AM '51

9

Director of the Mining Office of
the Office of the R.F.C.
Washington, D.C.

Oct. 12 - 1951
Box 295
Helena, mont

I have heard so much about helping the small miner, I would like to know just what one has to have to get help. With the country so short of metals. I think it is time to do some thinking for the small mine operator. Everyone else has got help, why should not he.

I have 100,000 tons of ore and a mill bought. I wanted to borrow $15,000.00 from the R.F.C to move and set up the mill. My Nelson here told me to write to Mr M. E. Nolin, Buren of mines 1201 N. Division St. Spokane 2. Wash. after about two weeks I got form to fill out which I did. and told them what I had and what I wanted to do. But that is the last I have heard of it. How many mine offices are there? and why is there so much red tape? These are the things that all the small miner are talking about. In tonight paper another cut in use of metals in Household appliance. If the small miner could get help, I don't think the country would be so short of metals.

Verly truly yours
W. A. Hall

400

FILE COPY
SURNAME:

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

AIR MAIL

1951

Mr. A. B. Weissenborn
Executive Officer, Region II
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. DMA 1486X-Copper
J. E. Hall, owner and lessee
The Lucky Strike claim and
the Alice Lozeau indian allotment
Exploration Project Contract Idm-E162

Dear Mr. Weissenborn:

Enclosed herewith are the original and five copies of the subject Exploration Contract, which I have signed for the Government, together with Exhibit "A" (3 pages), a subordination agreement (as yet unsigned) and a map.

These are to be presented to the Operator for his signature. If the terms and conditions of this contract meet with the approval of the Operator, one copy is to be given to him and one copy retained for your files. Please return the original and three copies to this office for distribution.

Because the project includes lands of a dual type of ownership the Legal Department has drawn up a modified Landlord's Subordination Agreement which is to be substituted for the standard form MF-202. Please have the 7 copies of the modified form signed and inserted in the contract. The two extra copies should be forwarded with the contract copies returned to this office. The original signed copies of the Subordination Agreement are enclosed herewith.

If any part of this contract does not have the approval of the Operator, the original and all copies of the contract are to be returned to this office together with the proposed changes for consideration.

Please note that the following changes have been made in the contract as originally outlined:

1. The item for buildings has been modified as labor lives in the vicinity and buildings are to be of a temporary nature.

2. The sum alloted for "Equipment to be Rented" has been increased to allow for a larger compressor and two jackhammers. There is no reason that two machines should not be working during the drilling cycle.

3. The item for "Labor and Supervision" has been revised by decreasing the number of laborers from five to four and by providing for a full time mining engineer.

The above changes have reduced the total estimated cost of the project from $23,980.00 to $21,285.00.

Sincerely yours,

C. O. Mittendorf 8.4.10-2

C. O. Mittendorf, Director
Production Expansion Division

Enclosures

APPROVED:

Chairman, Coordinating Committee

Member, Bureau of Mines

Member, Geological Survey

GCSelfridge/jem
9/26/51

cc to: Adm. Reading File
Reports & Records
Docket
Messrs. Mittendorf, Olund
Moon
Gowen
Johnson
McKnight
Selfridge
Field, Reg. II

FILE COPY
SURNAME:

Guthrie

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

September 26, 1951

Memorandum

To: Director, Production Expansion Division

From: General Counsel

Subject: J. E. Hall exploration contract - Docket No. DMA-1486X

The redraft of the proposed exploration contract in this case, submitted to us on September 26, is approved as to legal form and sufficiency for signature on behalf of the Government subject to:

1. The indication at the break of the description of the property as inserted in Article 2 that the balance of the description is set forth on the sheet attached at the end of the contract.

2. The attachment of the subordination agreement of the co-owner of the Lucky Strike claim in the form suggested in our memorandum of September 24, 1951.

3. The proper signature by the applicant.

4. Proper dating prior to delivery.

5. Government approval of any subcontracts under which work upon the project is to be performed.

Your file is returned herewith.

RRguthrie/ema
Copy to: Reports & Records
J. L. Hofflund
Chron.
R. R. Guthrie

J. L. Hofflund

J. L. Hofflund
General Counsel

Attachment

a. & c.

400

FILE COPY
SURNAME:

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

AIR MAIL

SEP 25 1951

Selfridge
Mittendorf

G.E.C.

Mr. J. E. Hall
4650 Harrison Blvd.
Ogden, Utah

Re: Docket No. DMA-1486X

Dear Mr. Hall:

Your letter of September 5, 1951 to Dr. James Boyd has been referred to us for reply.

Our legal department has been discussing the subordination matter with the Bureau of Indian affairs. We hope to have some definite word from them in the very near future. Unless legal complications arise concerning the contract it should be completed shortly.

Sincerely yours,

C. O. Mittendorf (J.H.) 9-25

C. O. Mittendorf, Director
Production Expansion Division

GCSelfridge/jem
9/24/51

cc to: Adm. Reading File
Reports & Records
Messrs: Mittendorf, Olund
Mr. Selfridge
Docket

FILE COPY
SURNAME: 140

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

September 24, 1951

Memorandum

To: Director, Production Expansion Division

From: General Counsel

Subject: J. E. Hall exploration contract -- Docket No. DMA-1486

The draft of a proposed exploration contract in this case should be modified as follows:

1. The third sentence of the description of the property as filled in in paragraph 2 should be changed to read as follows:

"Also approximately 80 acres leased by the Operator from the heirs of Alice Lozeau, deceased, by lease November 14, 1940, as modified on July 22, 1947, consisting of the allotment of Indian lands No. 2890 to Alice Lozeau, deceased, and further described as follows: All of the SE¼SW¼ and SW¼SE¼, Sec. 33, Twp. 18 N., R. 22 W, and the NE¼NW¼ and NW¼NE¼, Sec. 4, Twp. 17 N., R. 22 W., excepting the portions of the Slow Poke, Lucky Strike, Eagle, Dixon and Trade Dollar mining claims, contained within the boundaries of the above described tract."

2. In paragraph 2(a), first line, after the word, "possession" add the words, "of the Lucky Strike claim." In the space following this paragraph cross out the word, "None" and substitute the following, "No encumbrances. Subordination agreement of co-owner attached."

3. In paragraph 2(b) insert after the word "possession" the words, "of the property described above as being leased."

4. In paragraph 3 in the space provided for the statement of the period allowed for the completion of the contract, delete the present insertion and substitute, "18 months."

5. There should be obtained from the co-owner in lieu of the present subordination agreement on the landlord form, an agreement more in keeping with the circumstances of the case. A draft of an appropriate agreement is attached.

Your file is returned herewith.

J. L. Hofflund

not stapled R+R

J. L. Hofflund
General Counsel

Attachment

RRGuthrie/ema

Copy to: Reports & Records
R. R. Guthrie
J. L. Hofflund
Chron.

SUBORDINATION AGREEMENT

Know all men by these presents:

Whereas the undersigned is the owner of an undivided one-half interest in the Lucky Strike unpatented lode mining claim located in Sec. 33, T. 18N., R. 22W, Sanders County, State of Montana; and

Whereas J. E. Hall, the owner of the other undivided one-half interest in said claim proposes to enter into an Exploration Project Contract with the United States of America providing for Government assistance in the conduct of exploration for minerals upon the said claim;

Now, therefore, the undersigned does by these presents subordinate all of his right, title and interest in and to said claim to all rights of the United States which shall arise as a result of such Exploration Project Contract; and

The undersigned agrees to commit no act, etc. (as per landlord's form)

AIR MAIL

Mr. J. E. Hall
4650 Harrison Blvd.
Ogden, Utah

Re: Docket No. DA-1486A

Dear Mr. Hall:

Your letter of September 5, 1951 to Mr. James Boyd has been referred to us for reply.

Our legal department has been discussing the subordination matter with the Bureau of Indian affairs. We hope to have some definite word from them in the very near future. Unless legal complications arise concerning the contract it should be completed shortly.

Sincerely yours,

C. O. Mittendorf

C. O. Mittendorf, Director
Production Expansion Division

GCSelfridge/jem
9/24/51

cc to: Adm. Reading File
Reports & Records
Messrs: Mittendorf, Olund
Mr. Selfridge
Docket

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D. C.
SEP 12 4 02 PM '51

~~JAMES BOYD~~

Mr. Adams

Mr. Selfridge

DEPARTMENT OF THE INTERIOR
RECEIVED
SEP 20 1951
Defense Minerals Administration,
Production Expansion Division.

1486 +

DMA #1486X
J. E. Hall
4650 Harrison Blvd.
Ogden, Utah
September 5, 1951

Dr. James Boyd
U. S. Bureau of Mines
Washington 25, D. C.

Dear Mr. Boyd:

I have completed all negotiations for a loan through the Defense Minerals Administration at your Spokane, Washington, Office with the exception of the contract which I signed and left undated and returned to your Spokane Office.

They are evidently holding up this contract because Spokane Office has not received a signed Subordination Agreement Form MF-201 and I am wondering, Mr. Boyd, if you would call the Bureau of Indian Affairs there in Washington, D. C. and see if this agreement can be signed by them and returned to the Spokane Office so that we can go ahead with this loan.

Would appreciate this very much.

Yours very truly,

J. E. Hall

J. E. Hall

JEH/jt

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

1951

Memorandum

To: Director, Production Expansion Division

From: Director, Supply Division

Subject: Application for Exploration Aid, J. E. Hall
Docket DMA - 1486X, Commodity-Copper, Government Participation-$23,980

Transmitted herewith are two copies of the subject application and six copies of a signed contract with exhibits attached.

This project is recommended for approval by the DMA Field Team, Region II. The Supply Division concurs in the recommendation.

Tom Lyon

Tom Lyon, Director
Supply Division

Attachments

DMA - #1486X

The Landlord's Subordination agreement (Mineral Lease Cont. 1-29-Ind-3909) Supt. of Flathead Agency by C. C. Wright was to be mailed direct to your Spokane office, last week by Mr. C. C. Wright.

Will you please attach them to this file? Thanks.

J. E. Hall

310

FILE COPY
SURNAME:

Gowen
Parsons
Johnson

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

Memorandum

To: Director, Production Expansion Division

From: Director, Supply Division

Subject: Application for Exploration Aid, J. E. Hall
Docket DMA - 1486X, Commodity-Copper, Government Participation-$23,980

Transmitted herewith are two copies of the subject application and six copies of a signed contract with exhibits attached.

This project is recommended for approval by the DMA Field Team, Region II. The Supply Division concurs in the recommendation.

not stripped in R.+R.

Tom Lyon

Tom Lyon, Director
Supply Division

Attachments

JBGowen:rw 8-24-51
Copy to: Administrator's Reading File
Reports and Records
DMA Field Team II
Copper Branch
Files - DMA Docket

a.e.c

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane 4, Washington

August 8, 1951

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 13 1951

Mr. Landon F. Strobel
Executive Secretary
Defense Minerals Administration
Washington 25, D. C.

Dear Mr. Strobel:

Enclosed herewith are six copies of a memorandum, six signed contracts, six copies of Exhibits "A", "B", "C", "D", and "E", six copies of a map, four copies of a Landlord's Subordination Agreement, and a copy of a mining lease from the Indian Services for an exploration contract at the Revais Creek property, Sanders County, Montana, DMA Docket No. 1486X.

Will you forward the above to the Chairman of the Copper Commodity Committee.

Also enclosed is the original docket material.

Very truly yours,

Verne C. Fryklund, Jr.

Verne C. Fryklund, Jr.
For: A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 13 1951

August 8, 1951

Through: Landon F. Strobel

Memorandum

To: Mr. J. B. Gowan, Chairman, Copper Commodity Committee

From: Field Team, Region II

Subject: Revais Creek Property, Sanders County, Montana
DMA Docket No. 1486X

Enclosed herewith are six copies of a memorandum, six signed contracts, six copies of Exhibits "A", "B", "C", "D", and "E", six copies of a map, four copies of a Landlord's Subordination Agreement, and a copy of a mining lease from the Indian Service. These are for an exploration contract at the Revais Creek property, Sanders County, Montana, DMA Docket No. 1486X.

The proposed exploration is to be divided into two steps. The first step involves only bulldozer trenching and sampling at a cost of $885.00. Step two is dependent upon the successful completion of Step one.

On the basis of the enclosed memorandum it is recommended that the application for an exploration contract be approved.

The return of this docket has been held up awaiting a copy of the mining lease from the Indian Service. The local office of the Indian Service will not sign a Landlord's Subordination Agreement.

We are hopeful that some agreement may be reached in Washington, D. C., between the DMA and the Indian Service. We assume that other proposed projects are also on Indian land and that there is already a precedent.

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

M. E. Volin
M. E. Volin, Member
(U. S. Bureau of Mines)

Enclosures

cc: L. F. Strobel
U.S.B.M. Spokane
U.S.B.M. Albany

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 13 1951

July 13, 1951

Memorandum

To: Field Team, Region II

From: Allan B. Griggs

Subject: Revais Creek Copper Property, Sanders County, Montana, DMA Docket No. 1486 X

Location and Accessibility

The Revais Creek Copper property is in sec. 33, T. 18 N., R. 22 W., and sec. 4, T. 17 N., R. 22 W., Sanders County, Montana and adjoins the Kootenay Copper Mines, Inc., property on the north (see map). From Dixon, which is on the Northern Pacific Railroad, it can be reached by 6½ miles of road, three of which are paved and the remainder are dirt.

History, Production and Ownership

The first exploration was done by the Drake Brothers in 1910, since then various people have dug three short adits and six pits on the property. There has been no production.

The Revais Creek Copper property includes the Lucky Strike unpatented lode claim, and approximately 80 acres of tribal Indian land, lying in sec. 33, T. 18 N., R. 22 W. and sec. 4, T. 17 N., R. 22 W., leased to J. E. Hall.

Description of Deposit

The country rock at the Revais Creek copper property is the Ravalli formation of the Belt series, which consists of gray, fairly pure to muddy quartzite interbedded with dark gray angillite. These rocks have a general north to northeast strike and dip to the southeast. Intruded into them in the prospect area is a hornblende gabbro dike, estimated to vary in thickness from 250 to 500 feet. It strikes north, varying 10 degrees to either direction from this, and dips from 45° to 60° to the west in the Green Mountain mine, the adjacent property to the south.

The mineralization observed on the Revais Creek copper property was all restricted to the gabbro and consisted of the oxidized zone copper minerals malachite and chrysocalla coating fractures and within shear zones. A small amount of disseminated pyrite and chalcopyrite also was observed along a shear in the short north drift of the longest adit.

The present pits and adits indicate scattered copper mineralization over a zone approximately 100 feet wide trending about N. 20° E., and extending between the upper two adits. The best showing is at pit 2 where a shear contains a one inch quartz vein bordered on either side by three inches of sheared rock partly replaced by malachite. Malachite may be seen coating many fractures at other places over widths of more than 10 feet. At no place, however, was any commercial ore observed. At the neighboring Green Mountain mine (see Docket 1175X) most of the ore mined came from the vein along the contact fault, but at this property this structure is exposed only 30 feet in from the portal of the lower adit, and here only a few specks of malachite were observed.

The possibility of finding copper ore in commercial quantities are not as bleak as the present exploration would indicate. They were made with no apparent understanding of the structures controlling ore deposition. At the neighboring Green Mountain mine control of ore shoots are intersections of subsidiary faults with the contact fault and changes in dip on strike along the contact fault. Both of these features cause more brecciation and shearing and a more open structure. If the proposed exploration is started with surface bulldozing to pick up such evidence the exploration might be favorably considered.

MF-200
(June 1951)

Docket No. DMA 1486X
Commodity Copper & ~~Platinum~~

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this ..... day of ....., 195..., between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] John E. Hall
4650 Harrison Boulevard
Ogden, Utah

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Montana, County of Sanders described as follows: [3] Mineral Lease Cont. 1-29-Ind-3909 Allot 2890 Alice Lozeau, Dec. Prob 239-39-3-27-39. SE¼ SW¼ and SW¼ SE¼ sec. 33 Twp. 18 N. R. 22 W., and NE¼ NW¼ and NW¼ NE¼, Sec. 4 Twp. 17 N., R. 22 W., and all of the Lucky Strike (see Exhibit A)

with respect to which the Operator represents and undertakes: [4]

(*a*) ~~That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached:~~

(*b*) That he is a lessee, in possession and entitled to possession, and the subordination agreement of the lessor is attached.

3. *Exploration project.* The Operator, within Thirty (30) days from the date of this contract shall commence work on a project of exploration for [5] Copper; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] 6 operating months* from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Any additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro rata share.

6. *Operating equipment.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. As to equipment purchased for the project, the Government will contribute its agreed pro rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

* 18 calendar months

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* An itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, analytical work, accounting, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in this contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, taxes, or any other indirect costs not expressly allowed by these provisions, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 50 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $11,990.00, which is 50 percent of the agreed estimated total cost of this project, $23,980.00.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

15. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter, shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent for each additional full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the mineral deposit which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

16. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

17. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in sextuplicate the day and year first above written.

John E. Hall
(Operator)

By

THE UNITED STATES OF AMERICA

By

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

DMA Docket No. 1486X
Commodity: Copper

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "A"

The objective of this exploration is to determine the continuity and grade along the strike of the copper vein in the southwest corner of the Lucky Strike Claim, and, if the vein has sufficient grade and width, sink a 65° inclined shaft 150 feet along the vein to determine depth extension.

Exploration Project
Time Schedule

Month		
		Step I
1st	1.	Bulldoze 400 feet of trench as marked on map, and sample vein.
		Step II
2nd, 3rd, 4th, 5th, 6th	1.	Sink 65° inclined shaft 150 feet along vein. Position to be determined after bulldozing.

The work to be done and the costs are as follows:

Step I

1. Bulldoze 400 feet of trench. 40 hours at $12.00/hour (Includes all costs.)		$ 480.00
2. Supervision, engineering, sampling and assaying		405.00
	Total	$ 885.00

Step II

To be carried out only if Step I is successful.

1. Sink 65° inclined shaft 150 feet at $100.00/foot (Includes all costs not specified elsewhere.)		15,000.00
2. Operating equipment to be purchased or rented		2,125.00
3. Buildings to be constructed		3,300.00
4. Supervision and engineering		2,670.00
	Total	$23,095.00
	Grand Total	$23,980.00

DMA Docket No. 1486X
Commodity: Copper

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "B"

Buildings to be constructed

Compressor house	8' x 10'	$500.00
Hoist house	12' x 15'	700.00
Blacksmith and tool shed	10' x 12'	600.00
Bunkhouse	30' x 15'	900.00
Mine office	10' x 12'	600.00
		$3,300.00

10x20 Combination blacksmith shop, tool shed and compressor house, frame dirt floor 700.00

10x20 Combination frame building with wood floor partitioned for mine office and dry 500.00

10x10 Frame hoist house with cement foundation for small hoist 600.00

DMA Docket No. 1486X
Commodity: Copper

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "C"

Operating Equipment

To be purchased

	Costq
1 mine car, 12½ cu. ft. (used)	$50.00
miscellaneous small tools	100.00
Total...$	150.00

OK

To be rented

	Rental per Month	Number of Months	Total Rental
1 compressor, 210 (315) cfm, gas	$250.00 (350)	5	$1,250.00
2 1 Jackhammer (I.R. 60#)	45.00 -90	5	225.00
1 water pump (Cameron #9)	25.00	5	125.00
1 air hoist (Tugger 2000#)	75.00	5	375.00
			$1,975.00

To be furnished

None

Total $2,125.00

DMA Docket No. 1486X
Commodity: Copper

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "D"

Labor and Supervision

2 miners	$1.50/hour
1 mucker	1.50/hour
compressor man-timber framer	320.00/month
Foreman	320.00/month
Consulting Engineer ($\frac{1}{4}$ time)	500.00/month

Working foreman - 1.75
2 - miners - timbermen 1.50
1 - mucker - 1.50

Mining engineer full time, 500.00

DMA Docket No. 1486X
Commodity: Copper

Exploration Project Contract, Revais Creek

Copper Property, Sanders County, Montana

EXHIBIT "E"

None

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

JUL 10 1951

Mr. A. E. Weissenborn,
Executive Officer, DMA Field Team II
South 157 Howard Street
Spokane 8, Washington

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Docket No. DMA 1486X

Commodity Copper

Applicant Mr. J. E. Hall, 4650 Harrison, Ogden, Utah

Please expedite the consideration of this application with particular reference to the points raised in the attached "Review."

Very truly yours,

Tom Lyon
Chairman
Coordinating Committee

Lowell B. Moon
For Bureau of Mines

Olof R. Ross
For Geological Survey

FILE COPY
SURNAME:

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

Copper
a, EL -
Bowen
Ron
Moon

Mr. L. E. Hall
4650 Harrison
Ogden, Utah

JUL 10 1951

Re: Docket No. DMA-1486X

Dear Mr. Hall:

This is to inform you that your application for aid for an exploration project has been referred to the field team for further study. You should hear shortly from Mr. A. E. Weissenborn, Executive Officer, DMA Field Team, Region II, South 157 Howard Street, Spokane 8, Washington.

Very truly yours,

Tom Lyon

Tom Lyon, Director
Supply Division

JWAlt:jp

Copy to: Executive Officer, DMA Field Team, Region II (2)
Reports and Records Branch
Administrator's Reading File
Coordinating Committee
J. B. Gowen
Charles J. Johnson
D. Mac Laren
Files

not stripped in R. & R.

Docket No. 1486X
J. E. Hall
4650 Harrison Blvd.
Ogden, Utah
June 20, 1951

U. S. Dept. of Interior
Defense Mineral Administration
South 157 Howard Street
Spokane 4, Washington

Attention: Mr. A. E. Weissenborn

I am attaching herewith six copies of the Mason W. Rankin report covering the property adjoining Project DMA-1486X on the South, however, this Rankin report indicates that the best possibilities in real mining development are not on the South but rather are definitely located on the adjoining property to the North which is the Indian lease and the Lucky Strike and which we are requesting a loan to develop.

I thought it would be best to submit this report to you in six copies so that one each can be attached to the original papers if you so desire.

If you do not have any reason to do this, I would request that you return the Rankin report to me for my files.

Yours very truly,

J. E. Hall

JEH/jt
Encl. (6 copies)

Rankin Report

DRAKE MINE

GREEN MOUNTAIN MINING COMPANY
REVAIS CREEK MINING DISTRICT
SANDERS CO., MONTANA

INTRODUCTION

The subject property was examined for Green Mountain Mining Co., at the request of Mr. Earl F. Elstone, Manager. The period April 19-23 was spent at the mine, and all accessible workings were examined and mapped in detail. Mr. Herbert C. Fisher kindly assisted with the field work.

This report is concerned solely with present and future development possibilities at the property and as the History, Location, Development, Claims and Ownership, etc., are well known to those concerned, no description of these matters is included. A rather full discussion of geologic features is presented as having a direct bearing upon the development possibilities.

GEOLOGY AND ORE OCCURRENCE

The mine is situated in an area of ancient sedimentary rocks, these being the Ravalli series of Pre Cambrian age. The formation is composed mainly of impure quartzites which are buff to grey in color. Occasional thin shaly layers are also present. The formation is typically very hard and resistant to erosion and frequently forms talus slopes composed of massive boulders which effectively conceal bedrock structures. Regionally the formation strikes N.E. and dips at varying angles to the S.E.

A sizeable dike of medium to fine grained, dark gabbro has been intruded into the quartzites. Regionally this dike strikes N.S. to a little east of north and dips to the west at angles ranging 40° to vertical. The dike ranges up to 500 feet or more in thickness and may be traced on its strike for over one mile. Its extent south of the mine workings is not definitely known as it is coved by gravel in the valley floor. Other similar dikes occur in the surrounding area, but are not included within the present study. The dike intrusion probably follows an ancient line of weakness (a fault)within the quartzite. However, this structure was largely healed by the intrusion and in many places the contact between gabbro and quartzite is very tight and shows no evidence of movement. Contact metamophism of the quartzite is minor and unimportant, although it is somewhat darkened and on occasion shows recrystallization of argillaceous material on and within a few feet of the contact.

The age of the gabbro cannot be definitely determined. It is, of course, younger than the enclosing Ravalli quartzites. Probably it is associated with the late Cretaceous or early Te tiary igneous action with which most of the Montana igneous rocks may be correlated. An early phase of this activity consisted of the formation of thick flows of andesite and other basic extrusives and the gabbro dike under consideration may well mark a conduit through which molten material at one time arose to form such a surface flows.

The distribution of mineralization, always occurring within or in near proximity to the gabbro marks an association too obvious to overlook, and the solutions responsible for the mineral depositions may be regarded as an end stage effect of the intrusion.

Earth movements accompanying and following the gabbro intrusion are marked by a number of faults. These, in general, appear to be of small to moderate displacement, but some may have a sizeable movement. Faulting tends mainly N.S. along and near the hanging-wall contact between gabbro and quartzite, forming the so-called contact fault. Other fault structures tend northeasterly with dips at moderate to steep angles southeasterly. Faulting is mainly a pre-mineral but some movement persisted in post mineral times, and minor adjustments even to recent times, as shown by striations on copper carbonates and other secondary minerals of comparatively recent formation. Although post mineral movement is present, the dislocations of ore are minor and no serious development problem is presented.

The localization of commercial ore bodies is directly controlled by the local structure pattern formed by the faulting and efficient mine development is dependent upon an understanding of the basic elements of this structure pattern and its significance.

Mineralization is believed to have been the result of deposition from ascending solutions which transvered various faults and fractures and were largely concentrated in and along zones of maximum rock brecciation. Where the rock fractures were small, the mineralization is confined to narrow stringers and weak deseminations which are economically unimportant. The main channels are present along and near fault intersections and along rather abrupt changes in dip and/or strike of fault structures. Early mineralization consisted of white quartz with a very greasy luster, and accompanying this was a small amount of specular iron (specularite -Fe_2O_3). This mineralization thoroughly healed some channelways and is present today at highly irregular outcropping bodies along N.E. faults and occasionally along or near the contact between gabbro and quartzite. Quartz occurring as agangue mineral in the ore is of identical appearance.

Eposition of the quartz took place as an early phase of mineralization and at rather high temperatures. As later phase of mineralization sulphides were deposited, and between the deposition of quartz and sulphides there may have been a period of renewed movement along certain of the fault structures. The sulphides, consisting of pyrite, chalcopyrite, bornite and possibly others, were then deposited by replacement, and also filling brecciated areas, in the enclosing rocks and in the earlier quartz. A later quartz accompanied and follows the sulphide deposition. Minor amounts of the precious metals, gold, silver and platinum accompanied the sulphides. The presence of platinum is noteworthy and its occurrence here conforms with its world wide association with basic and ultrabasic igneous rock types. Following the deposition of the sulphides the primary orebodies were substantially as they are today, although perhaps somewhat later modified by minor post faulting. The primary orebodies are nowhere exposed within the limits of the present development, their makeup being observed only through small remnants remaining within the presently exposed bodies. The grade and extent of the primary ores are of the utmost importance to the future of the property. It is encouraging that pyrite is only moderately present, and that bornite is present in some quantity as this mineral is associated with many of the major deep seated copper ore bodies throughout the world. Platinum also is typically of deep seated origin. The evidence at hand therefore supports the belief that the primary mineralization may persist to considerable depth without appreciable change in composition. The size and grade of the primary bodies cannot be accurately predicted, but it is likely that small bodies of good grade are present. There is no indication, however, that the primary zone will contain individual ore bodies of large size.

Following the deposition of sulphide (primary) ores the ore bodies were subjected to pronounced erosion and to modification, with impoverishments and enrichment by the action of descending meteoric waters. Through the decompositon of pyrite and other sulphides forming acid solutions the near surface ores were "leached" and copper carried downward to be redeposited at and near the water table by reaction between the descending acid waters and the normal alkaline waters below. This copper was largely deposited as sooty chalcocite although some covellite was also formed. The leaching action although prolonged was incomplete and as a result secondary copper minerals are present in the zone of oxidation. These are malachite, azurite, chryscolla, cuprite and tenorite, the last two being red and black ozides of copper respectively. These minerals carry appreciable values in gold and platinum, and constitute the ores previously mined on the upper levels.

The degree of leaching and enrichment is again closely associated with certain structurally favorable faulted areas, mainly along and near fault intersections, further intensifying the lanticular to pipe-like nature of the commercial ore occurences. The degree of secondary action may also be observed by bleaching and koolinization (formation of clay) both of the gabbro and quartzite, and this action is most prominent near and within commercial ore concentrations.

DEVELOPMENT POSSIBILITIES

Present limitations make full development of the property impossible. However, a complete outline of development is herewith presented, the entire program being recommended as a worthwhile development venture.

1. Development to the south from the No. 3 level is being pursued at the present time. This development is being done to test the intersection between the quartzite-gabbro contact and a strong N.E. fault zone which appears at surface as shearing in gabbro, with the deposition of irregular bodies of early quartz and very minor amounts of copper. Due to the rock cover the exact altitude of this structure (or structures) cannot be determined, but the least evidence has been used in projecting to the No. 3 level and indications are that the critical area for development lies from 30 to 250 feet ahead of the present face, and this area is shown on the accompanying maps. There is a reasonable expectation that an ore body may be present inthis area, and the small pod of mineralization encountered into or near the present face is encouraging.

This development has much to recommend it, and the discovery of a new ore body in this section might conclusively establish a profitable operation. The risk, however, is considerable with probably no better than a 50-50 chance for success.

2. Development North of the shaft on the 3rd level has been very disappointing to date, with only a small amount of ore discovered, and that has been mined out. Much of the work however, follows a steep fault which is also exposed on the upper levels and is barren there as well. An almost immediate improvement should be expected ahead of the north face, and it is recommended that at least 50 feet of work be done in this heading. This work would encounter the downward extension--extension of the cross vein contact fault intersection which was the locus of a fair sized ore body on the upper levels. Unfortunately that body has been stopped nearly to the No. 3 level through an old winze, and this work has never been accessible for examination by the water. It is believed, however, that sufficient ore should be present in this section to fully defray for the expenses of the recommended development and possibilities for the considerable ore to the North of the intersection ore at least fair, and certainly worth investigating.

3. An excellent development possibility remains untested in the section below the ore body exposed on and above the tunnel level, North of the vertical shaft. It is surprising that no work was done to test this section when development operations on the 2nd level were under way. Two faces on this level may be in fairly close proximity to the downward extension of these ores. These being the North foot-wall drift which is entirely in grabbo, and the 2nd being the main drift at the point where the grabbo-quartzite contact was encountered. Approximately 150 feet of work to the North from either of these headings should encounter the down dip continuation of the mineralization exposed on the tunnel level. Additional work is favored from the North footwall drift as this heading may effectively be used to develop both the contact fault section and an east dipping structure which is well mineralized above. This heading should be directed on a Northwesterly course, to the grabbo-quartzite contact, with the further details of development to be dependant upon the structures and mineralization encountered. Where exposed on an above the tunnel level the area shows a high degree of breciation along and near the fault intersections and locally shows a strong koolinization which indicated a very active leaching section by descending waters. The writer takes a very optimistic view of possibilities in this section, and while recognizing that no large bodies are indicated, nevertheless considers the presence of commercial ore a probability.

An operating problem is posed by the recommendation just above set fourth and perhaps if the outcome of work to the North from the No. 3 level was unusually successful it might be desired to continue this heading to develop the bodies North of vertical shaft at additional depth. However, the distance is much greater being approximately 450 feet. No final determination of the proper site for this development is therefore contingent upon the results obtained by the minimum of 50 feet of development and presently recommended for the 3rd level heading.

4. The long range future of the property is dependent upon the results of additional development in depth, and if the lateral development previously outlined should be wholly unsuccessful, no further development in depth could be recommended. However, it is not considered at all likely that this situation will exist. Ore is known to occur over a strike length of 800 feet, and the principal ore shoots now developed rake to the South at moderate angles. The present inclined shaft is rather well situated for the immediate down dip development objectives. The primary ore zone may be expected at a moderate depth below the 3rd level, and, within this zone there will be none of the sooty chacocite enrichments encountered above. However, it is reasonable to expect that ore of fair to good quality will be present. Moreover, the lower grade portions of the ore bodies, which have been oxidized and non-commercial on the upper levels, will be entirely sulphide and amendable to concentration.

Another poor development possibility is that some ore will occur along "Major Fault Zone" exposed on the 3rd level south drift and at sometime a few rounds to the southeast should be driven along the weak mineralization here exposed. If the mineralization fails to improve in a short distance, no further work should be done.

Exploration possibilities are believed to be good in the area north of the present holdings. A weakly dissemination mineralization is wide spread in grabbo, and fault structures similar to those which produce ore in this property are known. Development has been extensive, although haphazardly conducted and not in accordance with geological factors responsible for ore localization in one mine to a district as a whole, with good success and this may be the bodies, if present, will be similar in size and grade to those previously mined, however, the possibility that larger bodies may be present should not be overlooked and there is some field evidence in support of this possibility.

CONCLUSIONS

The development heretofore outlined is believed to have a good chance for success and available evidence strongly suggests that sufficient ore should be disclosed to sustain a profitable operation.

Mineralization within the primary zone is expected to be deep seated and locally at least of fair to good grade. Low grade ores with in the zone will be amendable to concentration, thus adding to the potential ore supply.

It is not likely that the mineralization at this mine is an isolated occurrence, an an intelligently directed exploration at other nearby properties should have a fair to good chance for success. It would be highly desirable to develop moderate ore tonnages in advance of actual mining as substantial operating economics could be realized through near capacity operations of the present mine and mill plant, thus enhancing the possibilities for success.

Respectfully submitted

MASON W. RANKIN

Docket No. 1486X
J. E. Hall
4650 Harrison Blvd.
Ogden, Utah
June 20, 1951

U. S. Dept. of Interior
Defense Mineral Administration
South 157 Howard Street
Spokane 4, Washington

Attention: Mr. A. E. Weissenborn

Enclosed are six copies of Form FM-200, six copies of Form FM-202 (Mabel Ashcroft); Six copies FM-202 were sent to your Spokane Office direct by C. C. Wright, Indian Agent, Dixon, Montana. Enclosed are six copies of Form FM-100, six copies of Exhibit "G", six copies -- four page letter Appendage to FM-200, one copy of Exhibit "A" (map of property), one copy of part of Indian land lease. This covers 18 acres, however, the original covers 80 acres but is identical in contents.

I believe this is all that is required at this time.

Yours very truly,

J. E. Hall

J. E. Hall

JEH/jt
Encls. as indicated

Docket No. 1486X
J. E. Hall
4650 Harrison Blvd.
Ogden, Utah
June 20, 1951

U. S. Dept. of Interior
Defense Mineral Administration
South 157 Howard Street
Spokane 4, Washington

Attention: Mr. A. E. Weissenborn

I believe all the necessary papers and reports, maps, data, and etc. that you requested are herewith enclosed.

However, in connection with this, I would like to at this time, if permissable, make application, if advisable, to submit also for your approval, a contract for the entire project of approximately 150 feet 45 degree incline shaft and 100 feet cross-cut.

If you would think it better to have this job contracted than worked out by the operator, please advise me in detail; or if you wish a bid on this, send me the necessary papers.

Yours very truly,

J. E. Hall

J. E. Hall

JEH/jt
Encls.

1486X

Docket No. DMA-~~1486X~~
J. E. Hall
4650 Harrison Blvd.
Ogden, Utah
June 20, 1951

U. S. Dept. of Interior
Defense Minerals Administration
South 157 Howard Street
Spokane 4, Washington

Attention: Mr. A. E. Weissenborn

I am attaching herewith six copies of Form MF-200 together with extra sheets attached. If there is any other forms, information, or explanation necessary in connection with this loan, please advise me by air mail or telegram and I will furnish any and all information you need.

Yours very truly,

J. E. Hall

J. E. Hall
4650 Harrison Blvd.
Ogden, Utah

JEH/jt
Encls.

DMA #~~1660X~~ 1486X
J. E. Hall

Appendage to Form MF-200 of
EXPLORATION PROJECT CONTRACT

EXHIBIT "A" -- Proposed Exploration Project Details

It is proposed that I would hire a bulldozer for about four or five days to do some preliminary deep trench prospecting which will be conducted across the Lucky Strike Claim both East and West and North and South. Also along the Indian lease land immediately adjoining the Lucky Strike property and on the North endlines of the Green Mountain Mining Property (Kootenai Copper) which is now being developed. For a better understanding of this development, please refer to map herewith attached marked Exhibit "A #2".

By following the plan above outlined, we hope to explore the surface for a fissure vein and to discover the most favorable structures along the Lucky Strike dike that could be aimed for underground development. Also, we would use the bulldozer for the purpose of clearing the spot for location of incline shaft which I propose to sink (all things being equal) about 50 feet East of a point where the county road intersects the Lucky Strike and original Indian lease; (See Exhibit "A #2" to determine this location marked *). On this spot I propose to start an incline shaft, 45 degree angle, going due East. The proposed shaft will be 150 feet and should encounter several veins of ore.

At the bottom of this shaft which will be approximately 125 to 150 feet (depending upon ore development) we propose to cross-cut East or West 50 feet in accordance with engineer's recommendations. The 45 degree shaft is to be a 4 ft. shaft and a 2 ft. manway (6 ft. in the clear) 5 ft. high, sills 8 ft. and caps 8 ft. (post). 5FT

Also at this time I would like to make an alternate proposal plan, all things equal and conditions being favorable, that when and if the Kootenai Copper Company (a proven mine joining my property on the South) have sunk their shaft 100 feet from present depth and have drifted approximately 175 feet due North, that with the approval of Government Geologists and Engineers they would permit me to enter into a contract with the Kootenai Copper Company people to drift under my present Indian lease and raise on the first body of ore developed.

I propose to start this development first bulldozing and then the shaft within 30 days of the time my contract is finally approved.

EXHIBIT "A #1" -- Operators Property Rights

J. E. Hall of Ogden, Utah, is the owner of an undivided one-half interest in and to the Lucky Strike Mining Claim situated in the unorganized Revais Creek Mining District in Sanders County, Montana, as the record of the same appears in the office of the County Clerk and Recorder at the County Seat of Sanders County, Montana, recorded the 20th day of September 1949 at 4:20 P.M., Volume #51 of deed records of Sanders County on Page 419.

Also, J. E. Hall has a lease on certain mineral lands (Indian Allotment) designated as Cont. 1-29-Ind-3909 Allot 2890 Alice Lozeau, Dec. Prob 239- 39- 3-27-39. SE$\frac{1}{4}$.SW$\frac{1}{4}$ and SW$\frac{1}{4}$SE$\frac{1}{4}$ Sec. 33 Twp. 18 N R 22W., and NE$\frac{1}{4}$Nw$\frac{1}{4}$ and NW$\frac{1}{4}$ NE$\frac{1}{4}$, Sec.4, Twp. 17N., R.22w.

The Lucky Strike property is covered by Landlords Subordination

(Continued on Page #2)

DMA #1486X
J. E. Hall

Agreement Form MF-202 -- six copies signed by Mabel Ashcroft (1/2 owner with J. E. Hall) herewith attached. Also six copies of Subordination Agreement have been forwarded to your office by Mr. C. C. Wright, Supt. of Flathead Agency, Dixon, Montana.

EXHIBIT "B" -- Facilities and Buildings, Fixtures and Improvements

Compressor Room, 8' x 10' (Cement foundation)	$500.00
Hoist Room, 12' x 15' (cement foundation)	$700.00
Ore Bin, 8' x 10' x 7'	$175.00
Blacksmith and Tool Shed, 10' x 12'	$600.00
Bunk house for workers, 30' x 15' (Lava block)	$900.00
Mine Office for books, records, etc. 10' x 12' (Lava block)	$600.00
Collar set (for incline shaft) 10 x 10 posts	$160.00
	$3635.00

EXHIBIT "C" -- Operating Equipment

To be Rented

Gas Compressor (210)	$250.00	per mo.
Jack hammer (IR 60#)	45.00	" "
Water pump (Cameron #9) ..	25.00	" "
Air Hoist (Tugger 2000#)	75.00	" "
	$395.00	

To be Purchased

Air Receiver (3' x 8') ...	$25.00
Mine Car	50.00
150' of 5/8" Cable	75.00
200' of Car Rails, 20#, (second-hand)	60.00
Drills and bits	50.00
3/4" Air hose and 1/2" water hose	50.00
6 Mine shovels, 6 picks, 2 scaling bars	36.00
Light second-hand truck ..	150.00
Wheelbarrow	25.00
Set of 5/8" dyes and 5/8" steel for hanging rods (second-hand) ..... 669 ft. at 12¢ per ft.	80.28
	$601.28

EXHIBIT "D" -- Labor and Supervision

J. E. Hall will hereafter reside at the mining property near Dixon, Montana, and oversee and operate all work on this property but will also have associated with him Mr. Harvail G. Beck who was formerly foreman of the Triumph Mine at Triumph, Idaho, and foreman of Big Horn Mine in California, and associated with the Old Beck Mines at Eureka and Mammoth, Utah.

Also associated on this project will be Mr. Mason W. Rankin, former Geologist and Engineer with the AS&R Smelter Co. Also, Mr. Ron Browning of Dixon, Montana, who has worked many years in the Green Mountain Mining (Kootenai Copper) Company's adjoining property. Also to be employed are two more practical miners with long experience in this vicinity. All are experienced prospectors and practical mine workers.

(Continued on Page #3)

Wages for Labor; Cost per Month: (Continued - Exhibit "D")

Consulting Engineer	- Rankin ..... a. $600.00 for project (2 years)	$ 25.00
General Foreman & Miner	- Beck ..... a. $2.00 per hour	320.00
Operating Supervisor & Miner	- Hall ..... a. $2.00 per hour	320.00
Miner & Laborer	- Browning ..... a. $1.50 per hour	240.00
Engineer & Timber~~MAN~~ FORMER	- 1 Engineer and Timber~~man~~ FORMER ..... a. $1.50 per hour	240.00
Mucker & Miner	- 1 Mucker and Miner ..... a. $1.50 per hour	240.00
	Total monthly wage payroll	$1385.00

EXHIBIT "E" -- Rehabilitation and Repairs

The equipment and facilities now on the claim are of such minor consequences in value that I will report this as none.

EXHIBIT "F" -- Necessary Expenditures for Supplies

Gasoline (for hoisting compressor, pump, truck, etc.)	$200.00	per month
Large Bulldozer (4 days at $75.00 a day)	300.00	
Dynamite, fuse, and caps	200.00	per month
Carbide (for lights)	30.00	per month
Assaying and sampling	50.00	per month
Timbers for twenty 5' sets, 5 x 8 (local material)...	250.00	
	$1030.00	
Less bulldozer and timber	550.00	
Average monthly expenditure	480.00	

CRITERIA:

a. Copper is the strategic metal envolved in this development and production. There should be not only high grade copper developed in this project but also platinum. If you will refer to War Minerals Report #236 enclosed with original preliminary application, or obtainable from U.S. Department of Interior, Washington, D.C., you will notice that at less than 175' down and approximately 400' to the south of this property the adjoining claim, Green Mountain Mining Company (Kootenai Copper), the diamond drilling and also on actual smelter returns production indicates a very very attractive mammoth copper production which is also borne out in report of Mason W. Rankin. On confidential report on Drake Mine, Green Mountain Mining Company, Revais Creek, Dixon (Sanders County), Montana (copy of same accompanied original

(Continued on Page #4)

application), you will see that all indications are that this property which I have under lease on which I am asking this Defense Mineral Loan is one of the best outstanding opportunities for a large profitable and successful development that is left in the United States.

b. The geological probabilities of making a real significant discovery on this project is significant by the pursual of War Mineral Report #236 and the Rankin Geological Report of this immediate vicinity.

c. The availability of man power is second to none. There are a dozen part-time workers who will work several months out of each year and several miners who live in this vicinity the year round who are avilable for work.

d. The availability of equipment and supplies is very adequate because we are located in the greatest mining center in the United States. The Coeur d-alene, Idaho district is less than 50 miles due West of Dixon, Montana. The nine mile country gold development is only 15 miles South and, of course, Butte, Montana, is only 140 miles. Missoula, Montana, a city of 30,000 is the distributing center for all of the great mining machinery companies of the West. You can rent, lease, or buy any mining equipment necessary within an hours notice.

e. The accessibility to the mining property is the best as we are located only 6½ miles southwest of Dixon, Montana, a railroad station on the main line of the Northern Pacific Railroad. Only 3½ miles of good hard surface gravel road, all down grade, from this property to the Northern Pacific Railroad. U.S. Highway #10A is an all paved highway and the Revais Creek road of three miles is all graveled county road.

f. The availability of an abundance of fresh pure mountain water is available in Revais Creek that runs through the property. Power could be made available at a very nominal cost.

g. The mining experience of the operator, J. E. Hall, briefly is as follows:

> Born in the Ouray Mining District of Colorado; Worked in the gold, silver, and copper mines during high school and college vacations. I have also worked in Ouray, Leadville, Telluride, Cripple Creek, Bisbee and several mines in Nevada, and in Bingham Canyon, Park City, Utah; Butte, Montana, and during the months of July until November 1937, the writer and my brother, A.B. Hall, had the Drake Mine, later called the Green Mountain Mining Company and now called Kootenai Copper Company under lease from the original owners during which time we produced approximately $5,857.00 worth of ore. A copy of the Smelter Return Settlement Sheets of this operation conducted by J. E. Hall and A. B. Hall in 1937 is herewith enclosed for your pursual and evaluation in connection with ability to operate mining property. This is marked Exhibit "G".

I believe that I have filled out all the papers that you have required up to this date and have tried to make everything as comprehensive as possible as well as conservative and accurate. So I respectfully submit this for your approval and I am awaiting your further demands.

Yours very truly,

J. E. Hall

J. E. Hall
4650 Harrison Blvd.
Ogden, Utah
DMA #1486X

EXHIBIT "G" - [redacted]lter Returns from ore mined b[redacted]S. Ball and A.B. Hall
[redacted]n property adjoining Project DMA-1486X. J. E. Hall
[redacted]

Anaconda Copper Mining Co., Washoe Smelter, Butte, Mont.

G. P. Margetts, Superintendent

Date Shipment	Sample Lot	Car #	Pounds Gross	Water %	Pounds Dry	Copper %	Silver Ozs.	Gold Ozs.	Price Per Ton	Value In $
6/26/16	8102	40266	66230	11.0	59956	16.60	2.2	.22	$50.00	$1449.00
11/6/17	17247	32750	62060	9.5	56140	21.70	2.5	.00	70.06	1450.77
7/7/37	6202	53722	119640	10.6	106956	6.66	1.2	.060	10.95	585.60
7/30/37	6578	53310	127040	9.1	115479	8.90	1.7	.250	21.47	1230.67
8/9/37	6743	55801	116220	11.9	102390	11.12	1.9	.160	24.05	1231.24
9/9/37	7362	55844	115300	9.1	104809	9.14	1.3	.140	10.51	970.00
10/3/37	7615	53933	100540	9.4	91039	7.48	1.0	.150	14.66	663.13
10/26/37	8100	52153	113660	10.5	101726	8.58	1.0	.150	14.70	761.76
11/15/37	8445	Truck	14850	7.0	13846	32.83	3.0	.290	62.90	610.13
Totals			706750	67.0	685796	84.64	11.1	1.60	$166.05	$8857.53
Average for seven shipments from July 7 to Nov. 16-37			G.Avge 80T	Water 9.6	N.Avge 45 T.	Copper 12.12	Silv. 1.6	Gold .160	Per Ton $25.50	Avge.Car $886.79

The first two cars shown above, shipped from this mine in 1916 and 1917 were taken, in most part, from the same vein that the last six ton truck lot was shipped from in November 15, 1937. All cars above compiled were shipped to A. C. M. Co. Smelter with the single exception of Car #40266 which was shipped to the Piedmont Smelter (Butte). The Smelter return sheet shows that this car went $1508.25 in copper, $29.14 in silver, and $116.76 in gold (on the basis of only $20 per ounce for gold).

The last seven shipments of ore shipped between July and November 1937 reflect steady volume and averages better than 12% copper, 1.6 ozs. in silver and .160 oz. in gold. This ore also, according to recent assays, carries, I am told, platinum and pladium in quite large values which should equal more than the gold content, but this apparently is not being taken out at the smelter.

With such high values (better than an average of 12% copper) and a fair value in silver and gold the above record of production values definitely reflects that this property is now a very profitable producing mine.

When worked properly and managed efficiently -- with plenty of ore in sight and thousands of tons of high-grade ore already blocked out -- it is only reasonable to assume that if properly financed and managed this will, as indicated above, produce a net return of over $5,000 per month on the basis of only a little over ten tons a day production. However, 35 tons or more per day can be taken out -- just a matter of money to operate on. The best mining experts that I have had examine this property tell me that with a little extra outlay of capital this mine could be worked so as to pay a hundred thousand dollars a year clear profit.

4 a) DMA - 1486-X

The vein which applicant apparently wishes to prospect crosses his narrow strip between DIXON-EAGLE claims of Green Mountain Mining Co and LUCKY STRIKE claim in which he states he has ½ interest. Unless he can show satisfactory evidence of his right to both the narrow strip and the Lucky Strike, his application should be denied. Should he have other showings, a Field Team visit is necessary.

The extension of the vein on the Green Mountain property offers good chances for prospecting.

6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. 1486 X

Commodity COPPER

Total Amount $50,000

Govt. Participation $25,000

1. Name and Address of Applicant J. E. HALL
4650 HARRISON, OGDEN UTAH

2. Location of Property PERRIS CREEK DISTRICT SANDERS COUNTY, MONTANA. SEC 33, TWP 18, NO. R 22 W & SEC 4 TWP 17 NO R 22 W.

3. Mineral or metal COPPER Is it listed in Section 9 of MO-5? YES

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good ✓ See attachment

b) Poor

c) None

d) Don't know—needs field examination Yes

e) Is there an alternative and favorable project?
(If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? YES
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? YES No! Not of the present lease

Does the lease have sufficient time to run to cover a future productive period? NO IT IS DATED 1940 AND WAS A TEN YEAR LEASE

another lease is mentioned but not included dated 1947 for [illegible]

*question numbers are those of MF-103

7. Are subordination agreements necessary? YES

a) MF-201? _____

b) MF-202 YES

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower YES

b) Equipment and supplies NO
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* YES

d) Water (question 13)* YES

e) Power (question 13)* DOES NOT MENTION

Is a field check needed on any of these points? YES

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* YES.

Is a field check needed on this point? NO

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? NO

If not, are there sufficient data given so that you can describe the project? NO If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? NO

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? YES

If not, what part of it is? _____

Is this part a worthwhile exploration project? —

d) Are the cost estimates detailed? No

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? No If so, attach a draft.

e) Are the cost estimates reasonable? EQUIPMENT TOO LOW (SEE NO 17)

f) Should more information be requested from applicant? YES

g) Is a field examination necessary to complete Exhibit A? YES

11. Exhibit B (question 23-d)*

a) Is it applicable? No

b) If so, are sufficient data furnished? — If so, attach a draft.

c) Is a field check needed? No.

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? YES e & f ARE APPLICABLE, g-NO

b) Sufficient data? No If so, attach a draft.

c) Are rents and charges reasonable? YES

d) Is a field check needed? YES

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? YES

b) Is the schedule adequate for the work proposed? NOT SUFFICIENT DATA

c) Is the schedule excessive for the work proposed? "

d) Are the proposed wages and salaries reasonable? FOREMAN TO HIGH

e) Is a field check needed? YES

14. Exhibit E (question 23-c)*

a) Is it applicable? No

b) Sufficient data? –

c) Reasonable? –

d) Field check needed? No

15. In your judgment, can the proposed work be done in the proposed time? NOT SUFFICIENT DATA GIVEN

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? He does not give estimate for cost but says he is willing to put up $23,000 which would make estimated cost $50,000. His total expenditures come to $13,290.00 and he does not show how much next of the money is to be spent. On question 21 (MF-103) his estimate of time is 18 months but all costs (23 MF-103) are calculated on a 6 month basis. Check these points. For cost of supplies & materials (No 23h MF-103) he puts at $1600 then in other items not mentioned in No 23 (MF-103) he includes material & supplies again at $1400 (23i MF-103).

23(2) Cost of items of equipment should be itemized.

Reviewed by: [illegible]

C G Olsen

D W Rochow

Date 20 June 51 J B Lowen

97692

EXHIBIT A (21 & 22)

LABOR	$ 8,500.00
EQUIPMENT (2 CARS, HOIST HOUSE ENGINE, COMPRESSOR, DRILLS, CABLES)	1,500.00
CAT 5 DAYS @ $50	250.00
MATERIAL + SUPPLIES	1600.00
GAS, POWDER, STEEL @ 240 a Mo. 6 Mos.	1440.00
	$ 13,290.00

EXHIBIT C (23 - e f g)

e 2 CARS, HOIST HOUSE ENGINE, COMPRESSOR, DRILLS, CABLES	$ 1,500.00
f. CAT - 5 DAYS @ $50.00	250.00
g. NOT APPLICABLE	—
	$ 1,750.00

FILE COPY
SURNAME:

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

June 14, 1951

Mr. J. H. Hall
4650 Harrison
Ogden, Utah

Subject: DMA-1486X
Re: Exploration Loan -
Drake

My dear Mr. Hall:

Receipt is acknowledged of your application and attachments of May 15, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1486X and referred to Mr. J. B. Gowen, Chief, Copper Branch on June 6, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1486X.

Sincerely yours,

LANDON F. STROBEL jc

Landon F. Strobel
Executive Secretary

L. F. Strobel:jc
cc: Strobel
✓File
Gowen
Lyon

dma 1486 X

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane 8, Washington

May 29, 1951

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 1 - 1951
LANDON F. STROBEL
Executive Secretary

Postmarked - May 29 1951 7pm.

Mr. Landon F. Strobel
Executive Secretary
Defense Minerals Administration
Department of Interior
Washington 25, D. C.

Dear Mr. Strobel:

Enclosed herewith is an application for an exploration loan submitted by J. E. Hall on a Revris Creek copper property, Sanders County, Montana.

The applicant does not give an estimated cost of this project, but infers that he will participate to the extent of $25,000. Inasmuch as it is a copper bearing property he evidently wishes the total contract sum to be $50,000 with the Government supplying 50 percent of that figure.

Very truly yours,

Thor H. Kiilsgaard

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

Enclosure

cc: U.S.B.M.

May 10, 1951

Mr. J. L. Hall
[illegible] Harrison Street
Ogden, Utah

Dear Mr. Hall:

Complying with the request contained in your telegram of May 9, 1951, there is enclosed a copy of Mineral Order 5, and one copy each of the various MF forms to be used in connection with applying for assistance under the Exploration Program.

Should you have further questions with respect to this program, you may either contact this office or the Field Team office located at 2th New Customhouse Building, Denver 2, Colorado.

Sincerely yours,

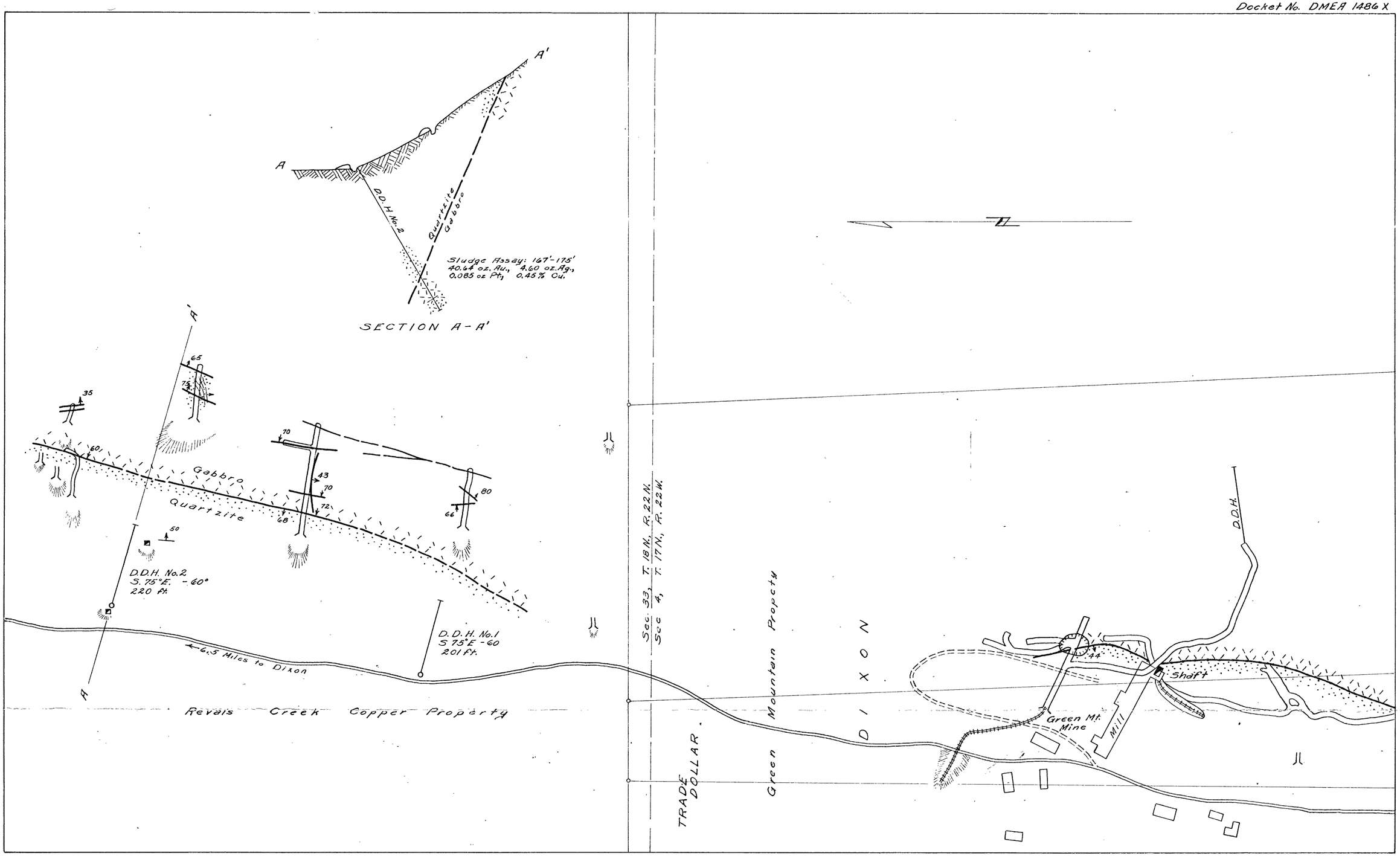
LANDON F. STROBEL
2/13

LANDON F. STROBEL
Executive Secretary

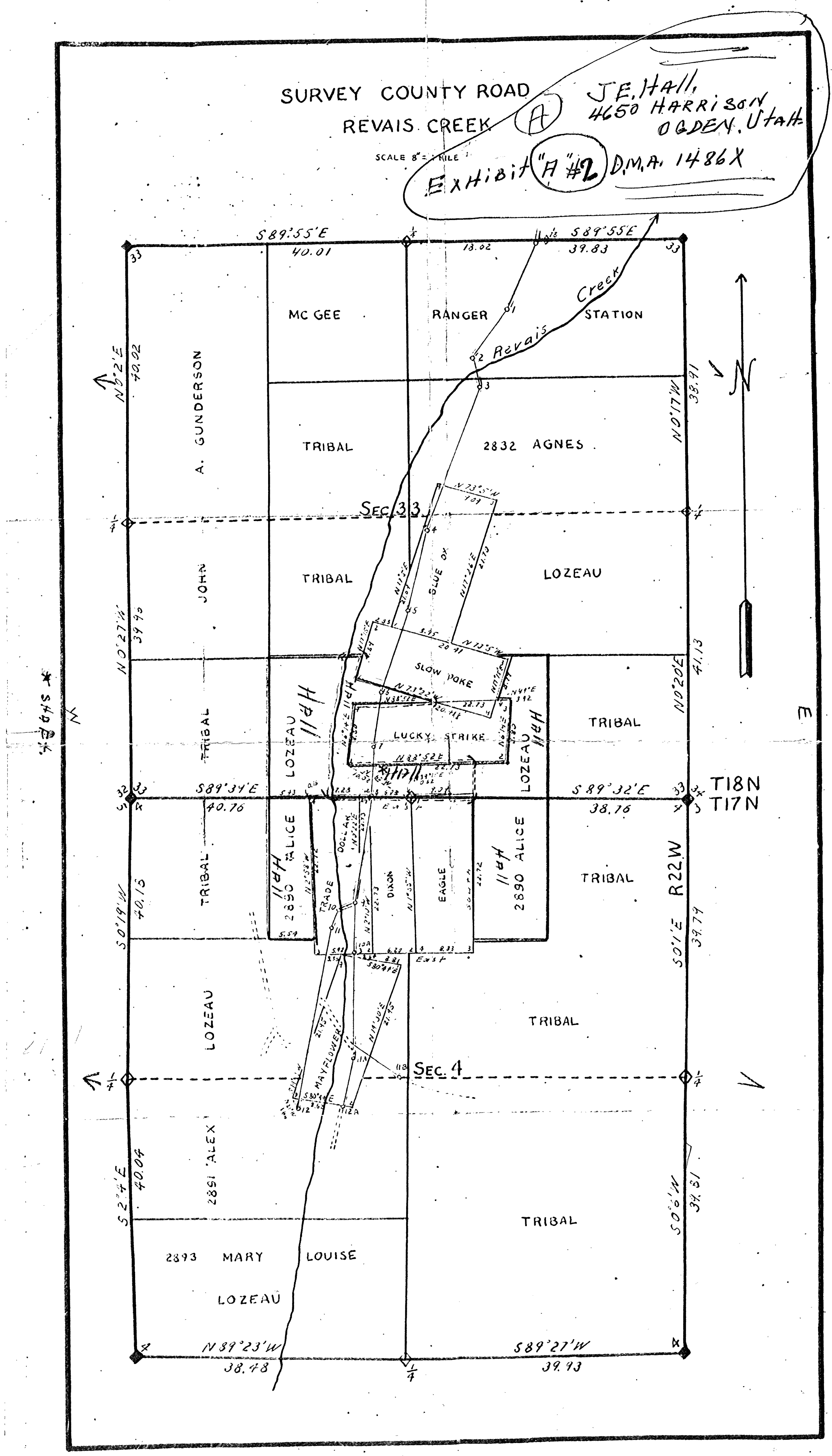
Enclosures 10

LFSTROBEL:hb

Copy to: Administrator's Reading File
J. H. East, Region IV
L. F. Strobel
Files



Sketch Map of Workings of Revais Creek Copper Property, Sanders County, Montana
Showing relation to adjacent Green Mountain Mine
Scale 1" = 100'


SURVEY COUNTY ROAD
REVAIS CREEK
SCALE 8" = 1 MILE
A
J.E. Hall,
4650 HARRISON
OGDEN, Utah
Exhibit "A" #2 D.M.A. 1486X
S89°55'E
40.01
18.02
39.83
MC GEE
RANGER
STATION
Revais Creek
A. GUNDERSON
N0°2'E
40.02
TRIBAL
2832 AGNES
N0°17'W
38.91
SEC. 33
JOHN
TRIBAL
LOZEAU
N0°27'W
39.95
SLUE OX
SLOW POKE
LUCKY STRIKE
TRIBAL
N0°20'E
41.13
S89°34'E
40.76
S89°32'E
38.76
T18N
T17N
R22W
2890 ALICE
TRADE
DOLLAR
DIXON
EAGLE
S0°19'W
40.15
S0°1'E
39.79
LOZEAU
MAYFLOWER
SEC. 4
2891 'ALEX'
S2°4'E
40.04
S0°6'W
39.81
2893 MARY LOUISE
LOZEAU
N89°23'W
38.48
S89°27'W
39.93