DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
~~Defense Minerals Exploration Administration~~

OFFICIAL DOCKET FILE

Idm-E NO._____

OME ~~DMEA~~ NO. 6488

Application
- [ ] Denied
- [x] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

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

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

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

Additional Folders:

Left Side

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

Right Side

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

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

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane, Washington 99204
August 9, 1965

OFFICIAL COPY
O. M. E.
RECEIVED
AUG 11 1965

INITIALS	CODE

To: Chief, Office of Minerals Exploration

From: Acting Field Officer, Region I

Subject: Forwarding new application (Antimony)
Silver Ridge Mining Co., Ltd.
Eagle Creek Antimony Mine
Fairbanks District, Alaska

Enclosed is a copy of an application for OME aid. The application is not complete in that:

1. Only one copy of the letter of July 30, 1965, from Henry L. Hill was received.

2. No copies of letters from the Applicant to any bank, and copies of only one bank reply are included.

3. There is no cost breakdown of any sort to account for the seemingly very high estimate of $100 per foot for drifting and the rather high estimate of $300 per foot for shaft sinking.

4. The Option Agreement is faulty in that it lists Eagle Lode No. 1 - 8 inclusive, then repeats Eagle Lode No. 5 - 12 inclusive. From the claims listed in the Hill report and shown on the map, the last group of claims should appear in the option as Black Eagle Lode No. 5 - 12 inclusive.

D. R. MacLaren

Enclosure

cc: Docket
DRF

MME Form 40
Jan. 65

RECEIVED
AUG 6 1965
SPOKANE, WASHINGTON

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Budget Bureau No. 42-R1368
Approval expires Dec. 31, 1968

OFFICIAL COPY
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RECEIVED
AUG 11 1965
INITIALS CODE

APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

Pursuant to Public Law 85–701 (72 Stat. 700; 30 U.S.C. 641)

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

SILVER RIDGE MINING CO. LTD.
P.O. Box 540,
577 Baker Street,
Nelson, B. C.
Canada.

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER 6488

DATE RECEIVED 8-11-65

REGION I

DIVISION CODE

BUSINESS ORGANIZATION *(Check one)*

- INDIVIDUAL
- CORPORATION X
- PARTNERSHIP
- OTHER *(Specify)*

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
H.F. Magnuson	Box 469, Wallace, Idaho	President
F. S. Aikins	Box 570, Nelson, B. C. Canada	Secretary

STATE IN WHICH FIRM IS ORGANIZED: Canada

MINERAL(S) FOR WHICH YOU WISH TO EXPLORE: Antimony

ESTIMATED COST OF PROJECT: $ $70,000

PROPERTY NAME	LOCATION COUNTY	STATE
Eagle Creek Antimony Mine	Fairbanks	Alaska

GENERAL INSTRUCTIONS

Before filling out this application, please read the *OME Regulations for Obtaining Federal Assistance in Financing Explorations for Mineral Reserves* (30 CFR Chap. III). To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit two copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 2, existing mine workings and geology in item 3, and the proposed exploration work in item 5. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 3(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Office of Minerals Exploration, Department of the Interior, Washington 25, D. C., or with the nearest OME Field Office.*

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief, and that he would not ordinarily undertake the proposed exploration under current conditions and circumstances at his sole expense.

July 14, 1965.
DATED

H. Magnuson
BY *(Signature)*
President
TITLE

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

INFORMATION REQUIRED WITH THIS APPLICATION

1. Financial Eligibility:

(a) Submit evidence of efforts made within 90 days preceding the filing of this application to obtain credit from your bank of account and at least one other banking institution or other private source of credit. Such evidence shall include true copies of correspondence which show: (1) date of loan request, (2) amount and terms requested, (3) proposed use of loan funds, and (4) the replies from credit sources. If the loan was offered under terms which you consider unreasonable, state why you consider them so.

(b) List names and addresses of affiliated, parent, or controlling companies or organizations and state extent and nature of their interest.

(c) State how you propose to furnish your share of the cost of the exploration work.

2. Applicant's Rights in Land:

(a) State your interest in the land and mineral rights, whether owner, lessee, purchaser under contract, or other. If you are not the owner, submit one true copy of the lease, contract, or other document (with address of owner) under which you control the property. Describe all liens, mortgages, or other encumbrances on the land and state book and page number and official place where recorded.

(b) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all adjacent land which you own or control. Describe any part of the land or workings which should not be subject to Government royalty and liens. If the land consists of unpatented claims, state book and page number for each recorded location notice, including amended locations, and official place where recorded. State all the names by which you know the property.

(c) For all land or mineral rights encumbered or not owned, submit five copies of Lien and Subordination Agreements on MME Form 52. If the agreements cannot be obtained, state reasons and provide copies of letters of refusal.

3. Physical Description:

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

(b) State your interest, if any, in operations described in (a).

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

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

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

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

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

4. Accessibility of Property:

(a) To aid the OME representative who may examine the property, state name and address of person who will meet him; give directions for reaching the property; and describe accessibility of property and of any mine workings.

(b) Name the shipping and supply points and state the distances to the property.

5. Exploration Work:

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

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

(c) If an OME contract is executed, state how soon thereafter work would be started and finished. State your anticipated average daily or monthly rate of progress for each type of work.

6. Experience:

State your operating experience and background to conduct this exploration work and also that of the person who will supervise the work.

7. Estimate of Costs:

Furnish detailed estimates of the necessary costs *for each item of the work proposed in 5(a)* under the headings listed below with a total for each heading and the estimated total cost of the work. Costs for any work to be performed by an independent contractor should be listed separately under category (a) below. Costs for any work that is not to be performed by an independent contractor should be listed under categories (b) through (g).

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

(b) Personal services. The cost of supervision, engineering and geological services, outside consultants, and labor should be itemized by numbers and classes of employees; rates of wages, salaries or fees; and periods of employment. State whether these services are available.

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

(d) Operating equipment. List items of equipment and tools costing $50 or more per unit. Give specifications and indicate how each item is to be acquired—i.e., rented, purchased or provided by the applicant. If rented or purchased, state the estimated rental or purchase price. If furnished by the applicant, state condition and present fair market value.

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

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

(g) Miscellaneous. Describe the type and estimate the cost of repairs and maintenance of the operating equipment listed in 7(d). Do not repeat initial repairs listed in 7(e). Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories. [*Note*—The Government will not contribute to costs incurred before the date of the contract, or to costs of or incident to: (1) acquiring, using, or possessing land and any existing improvements, facilities, buildings, installations, and appurtenances, or the depreciation and depletion thereof; (2) general overhead, corporate management, interest and taxes (other than payroll and sales taxes); (3) insurance (other than employees' liability insurance); and (4) damages to persons or property (other than authorized repair to or replacement of equipment or other property used in the work).]

OFFICE PHONE:
MUTUAL 3-5861

RESIDENTIAL PHONE:
H. L. HILL—WALNUT 2-7996

RECEIVED
AUG 6 1965
OME
SPOKANE, WASHINGTON

H. L. HILL & ASSOCIATES LTD.

CONSULTING MINING ENGINEERS
844 WEST HASTINGS STREET
VANCOUVER 1, B.C.

July 30, 1965.

Mr. Donald R. McLaren,
Acting Field Officer,
O.M.E. Region 1,
Spokane, Washington.

Dear Sir:

Re: Silver Ridge Mining Co. Ltd.

We enclose herewith an application for O.M.E. assistance on behalf of Silver Ridge Mining Co. Ltd. for work on the Eagle Creek Antimony property at Fairbanks, Alaska.

The following information is submitted as requested on the M.M.E. form 40.

1. Financial Eligibility

(a) Enclosed herewith is a copy of a letter received from the Alaska National Bank of Fairbanks advising that exploration funds are not available for exploration on the Eagle Creek Antimony deposit. We understand that the First National Bank of Bairbanks have also written a letter to your office confirming that exploration money is not available their bank.

Perf. Bond DCL

(b) Silver Ridge has no affiliated companies or organizations.

(c) The company plans to sell shares to finance their share of the cost of the exploration work.

2. Applicant's Rights in Land

(a) Silver Ridge holds an option on the Eagle Creek property, as outlined in the agreement attached.

(b) The legal description is outlined in the agreement attached.

3. Physical Description

Enclosed herewith is a report by H. L. Hill & Associates Ltd. that covers sections 3(a) to 3(g).

4. Accessibility of Property

(a) Mr. J. Millette, 207 Lacey Street, Fairbanks, Alaska, is supervising the present program on the property, and would be available to assist an O.M.E. representative in making an examination.

(b) The mine is located on the Murphy Dome road 22 miles north of Fairbanks.

5. Exploration Work

(a) The proposed exploration work would consist of sinking a prospect winze on the main Eagle Creek zone 1, location of which is shown on the map attached to the H. L. Hill & Associates report. Sinking to date has cost about $300 per foot and, therefore, the proposed 100 foot extension of the shaft is estimated to cost $30,000. The proposed 100 feet of drifting, at $100 per foot, would cost $10,000. $30,000 would be required for additional equipment, etc. making a total of approximately $70,000.

(b) The cost of improving the present access road is ? included in the above estimate.

(c) In the event weather conditions permit it is planned to immediately accelerate the present exploration program. The shaft sinking work should be undertaken at a rate of 2 feet per day and drifting at a rate of ~~3~~ 4 feet per day.

6. Experience

(a) Our consulting firm has been retained by Silver Ridge to manage the Eagle Creek operation. We have had considerable experience in British Columbia in mine management having acted as consulting managing engineers for Giant Mascot Mines, Silbak Premier, New Cronin Babine, etc.

7. Estimate of Costs

It is almost impossible to provide a detailed estimate of the proposed cost due to the many uncertain factors effecting the operation. ?

Mr. Donald McLaren July 30, 1965.

Estimate of Costs (Continued)

A unit estimate of $300 per foot for shaft sinking and $100 per foot for drifting is considered realistic in view of our experience on the property during the past three months.

Yours very truly,

H. L. HILL & ASSOCIATES LTD.

Henry L. Hill

HLH/mjr
Encl. Copy of a letter from the Alaska National Bank of Fairbanks;

Report by H. L. Hill & Associates Ltd.

Copy of Option Agreement.

RECEIVED
MAY 1965
SPOKANE, WASHINGTON

ALASKA NATIONAL BANK
of Fairbanks

NORTHWARD BUILDING "The Friendly Bank" FAIRBANKS, ALASKA 99701

May 10, 1965

Silver Ridge Mining Company
Nelson, B.C.

Gentlemen.

We have carefully reviewed your recent application for a loan in the amount of $35,000.00 with loan proceeds to be used for exploration and development of an antimony mining operation in this area

We regret that we will be unable to assist you in this credit inasmuch as this loan would not conform with our present lending policies

Very truly yours,

W. M. Cartwright
Senior Vice President

WMC.jp

PLEASE SEND ALL CORRESPONDENCE TO ALASKA VIA AIR MAIL

RECEIVED
AUG 6 1965
O M B
SPOKANE, WASHINGTON

OPTION AGREEMENT

THIS AGREEMENT, made this 5 day of May, 1965, by and between:

ARLEY R. TAYLOR, of 2916 - 236 Southwest Alderwood Manor, Seattle, in the State of Washington; and
KENNETH E. O'HARRA, of 1211 Warren Street, Fairbanks, in the State of Alaska, hereinafter referred to and called "the owners;"

and

SILVER RIDGE MINING CO. LTD., having its registered office at 373 Baker Street, Nelson, in the Province of British Columbia, and having been recorded to properly do business in the State of Alaska, hereinafter referred to and called "optionor;"

W I T N E S S E T H:

IN CONSIDERATION of the sum of Ten Dollars ($10.00) and other good and valuable consideration, in hand paid, receipt whereof is hereby acknowledged, the owners hereby agree to grant an option as hereinafter contained to sell to the optionor, the rights hereinafter described, to the following described mining property, same consisting of Five Hundred Sixty (560) acres, situate in the Fairbanks Recording District, State of Alaska, and more particularly described as follows, to-wit:

Name	Book	Page	Serial Number
Eagle Lode No. 1	33	90	64-4017
Eagle Lode No. 2	33	91	64-4018
Eagle Lode No. 3	33	92	64-4019
Eagle Lode No. 4	33	93	64-4020
Eagle Lode No. 5	33	94	64-4021
Eagle Lode No. 6	33	95	64-4022
Eagle Lode No. 7	33	96	64-4023
Eagle Lode No. 8	33	97	64-4024

Antimony Ridge No. 1 to No. 8 inclusive
Eagle Lode No. 8 to No. 12 inclusive

Said mining properties being situated on Eagle Creek, some twenty (20) miles [illegible] of Fairbanks, Alaska.

It is the intent of this document to grant to the optionor, the exclusive option to purchase the claims, clear of en-

cumbrances by completing payment on the part of the optionor to the owners in the sum of $400,000.00, lawful money of the United States of America; however, it is the intent of this document that this be an option contract and not a purchase contract and that the optionor will have the right to work the ground and extract minerals or use the property in whatever way he sees fit during the term of this contract, provided that the payments as herein prescribed shall have been paid.

1. Place of Payment: All monies which the optionor pays to the owners under this agreement shall be paid to the owners personally, fifty percent (50%) of each payment to be sent to each of the owners at their respective addresses as shown in the introduction clause of this Option Agreement, unless said address is changed by written notification by the owner prior to payment date.

2. Incidental Rights:

(a) For all purposes of carrying out this agreement, the optionor shall have the right to take and hold exclusive possession of the claims, to erect buildings and to install machinery and equipment thereon and therein, and to explore and develop the claims, and, subject to Paragraph 4, to win, take and turn the ores thereof to account.

(b) Provided that the Optionor's rights hereunder shall terminate unless the optionor expends $10,000.00 per annum for exploration, development and mining work, performed upon the said claims, and without limiting the generality of the foregoing, including all expenses for buildings, plant, tools and supplies and all costs of the optionor arising out of same in connection with this agreement and the operations carried on hereunder.

(c) Provided, however, that in the event the optionor shall default, or for any cause, fail to make improvements upon said properties as provided in this contract, the optionor may, under the terms herein contained, pay to the owners, the sum of $10,000.00 in lieu of said improvements, without being subject to default.

3. Transfer of Title: The owners shall, forthwith after the execution of this agreement, convey the claims to the optionor and the optionor shall register the conveyance. When optionor records or registers the same, the optionor shall reconvey the claims to the owners by a conveyance which shall be held in trust by the First National Bank of Fairbanks, Alaska, Main Branch, to be delivered to the owners in the event of default under this contract and in the event of no default and payment in full as provided herein for the complete purchase of said mining rights, said conveyance shall be returned to the optionor.

The parties hereto shall join in complying with the requirements of the First National Bank of Fairbanks, Alaska, in connection with the holding of the conveyance in trust. The optionor shall pay that bank's fees or charges relating thereto.

ART
K&O
usm.
Ada

4.(b):

(2) The transportation of ore or concentrates from the mill or concentrator to the smelter or other place of final treatment;

(3) the smelting or final treating of same;

(4) the output taxes, or other taxes payable in respect of the ore, excluding all taxes or royalties in the nature of an income tax or a tax on net profit.

ART
K&O
usm
Ada

4.(b)(1): the transportation of the ore between the mine and the mill, concentrators, smelter, or other place of treatment, provided that:

(i) If the mill is located on the property, the transportation of the ore from mine to mill shall not be an outlay under the terms of this paragraph.

(ii) If the ore is milled in any location other than that provided for in (iii) hereof, then the transportation of the ore from mine to mill shall not be an outlay under the terms of this paragraph.

(iii) If the ore is milled at Fairbanks or at any other rail or ship loading point, then the transportation of the ore from mine to mill or concentrator shall be an outlay under this paragraph, provided that the ore grade averages sixty percent (60%) Antimony. If the ore grade is lower than sixty percent (60%) Antimony, then the proportion of transportation from mine to mill or concentrator charged as an outlay under the terms of this paragraph shall be the actual average monthly grade of ore expressed in the percentage of Antimony divided by sixty (60).

~~event of default under this contract and in the event of no de-~~ fault and payment in full as provided herein for the complete purchase of said mining rights, said conveyance shall be returned to the optionor.

If the optionor does not record or register the conveyance from the owners, the optionor will, under Paragraph 10, return it to the owners.

The parties hereto shall join in complying with the requirements of the First National Bank of Fairbanks, Alaska, in connection with the holding of the conveyance in trust. The op~~tionor shall pay that bank's fees or charges relating thereto.~~

4. Royalties Payable Before Option Exercised:

(a) The optionor shall, as long as this agreement is in effect and the purchase price has not been paid in full, pay a royalty to the owners of seven and one-half percent (7-1/2%) of the net smelter returns, forthwith, after receipt thereof.

(b) The expression "net smelter returns," wherever used in this agreement, means the amount by which the total revenue from any specified lot or shipment of ore or concentrates won by the optionor from the claims exceeds the sum of the outlays and expenses made or incurred in connection with:

~~(1) the transportation of the ore between the~~ mine and the mill, concentrators, smelter, or other place of treatment, and the transportation of ore or (2) concentrates from the mill or concentrator to the smelter or other place of final treatment;

(3) (2) the smelting or final treating of same;

(4) (3) the output taxes, or other taxes payable in respect of the ore, excluding all taxes or royalties in ~~the nature of an income tax or a tax on net profit.~~

(c) All sums of royalty paid to the owner under this agreement shall be deemed to be payments on account of the purchase price and shall be applied in reduction of the installment or installments thereof next payable in order of time.

5. Title Passes upon Payment: Upon payment in full of the purchase price, all the right, title and interest of the owners in and to claims shall pass to the optionor absolutely, and the optionor shall cease to be liable to the owners, save for the

performance of those of its covenants which theretofore should have been performed.

6. Various Covenants by the Owners: The owners agree with the optionor that they have the right to enter into this agreement and to dispose of the claims; that they have good title to the claims and that no third party has any interest in them; that the claims are clear of encumbrances; and that neither the owners nor any of their predecessors in interest or title have done anything whereby the claims may become encumbered.

7. Various Covenants by the Optionor: The optionor agrees with the owners as follows:

(a) That during the subsistence of the option, the optionor will do and record such assessment work, or pay such money in lieu thereof or rentals or other payments, as may be required to keep the claims in good standing, and pay current taxes.

(b) That during the subsistence of the option, the optionor will carry out its operations on the claims in accordance with proper mining practices.

(c) That during the subsistence of the option, the optionor will keep the claims clear of liens and other charges arising from its operations.

(d) That during the subsistence of the option, the optionor will allow the owners or their authorized agent to inspect the claims at reasonable intervals and times.

(e) That if the claims are brought into production by the optionor, the optionor will, until such time as the purchase price has been paid in full, render to the owners, from time to time, as may be agreed between the owners and the optionor (or failing agreement, at least semi-annually for periods ending June 30 and December 31), a statement of an accounting, certified to be correct by a responsible official, of all ores won from the claims and of the proceeds derived therefrom during the preceding period in respect of which no previous accounting has been made.

(f) That should the optionor terminate the option, it will, upon request, deliver to the owners copies of all plans, assay maps and diamond drill records relating to the optionor's operations on the claims; and

(g) That in the event of termination of the option,

all monies paid or payable hereunder to the owners prior to termination of the option shall be forfeited to the owners.

8. Agency: The owners hereby appoint the optionor to be their agent to do and complete, in their names, any business, act, or thing connected with the claims or any of them or with the working thereof, or with the interests of the optionor therein, the owners hereby ratifying and confirming all that the optionor reasonably and properly may do in that behalf.

9. Optionor Not Bound to Purchase: Neither any provision of this agreement nor the grant of any postponement for the doing of anything provided for by this agreement, shall be construed as obligating the optionor to pay the purchase price or any installment of it, or to take or hold possession of the claims, or, subject to Paragraph 7(a), to carry out any operations.

10. Termination: In the event that the optionor should fail to meet his obligations as they are spelled out in Paragraph 2 and 4 as hereinabove stated, and after said failure, the owners herein shall have notified the optionor in writing, notifying the optionor of said failure or default and fifteen (15) days elapsed between the date of the receipt of the notice and the optionor, after said notice having failed to comply therewith, the option granted by this agreement shall terminate.

The option herein granted shall terminate at the hour of 12:00 o'clock p.m. of the day on which any payment or work commitment listed in Paragraph 2 or 4 is due, if such installment or obligation has not theretofore been paid or fulfilled.

11. Notice to the Optionor: A notice to the optionor shall be in writing and shall be given either by delivering the same personally to a Solicitor for the optionor, or by sending it by registered mail or prepaid telegram addressed as follows:

Name: SILVER RIDGE MINING CO. LTD.
c/o H. Hill & Associaties
Address: ~~814 West Hastings St.,~~
~~Vancouver, B. C.~~

12. Notice to Owners: A notice to the owners shall be in writing and shall be given either by delivering the same personally to ARLEY R. TAYLOR and KENNETH E. O'HARRA, or by sending it by registered letter or prepaid telegram addressed as follows:

Name: ARLEY R. TAYLOR
2916 - 236 S.W. Alderwood Manor,
Seattle, Washington
and
Name: KENNETH E. O'HARRA

Address: 1211 Warren Street
Fairbanks, Alaska

13. When Notice Effective: Where a notice is sent by a registered letter, it shall be deemed to have been given to the party to whom it was addressed on the fifth day after the day of the posting of the letter, and where a notice is sent by a telegram, it shall be deemed to have been given on the day after the day of the dispatch of the telegram.

14. Where the context so requires, wherever the expression "the owners" is used in this agreement or the plural is used with reference thereto, that expression or the plural shall be deemed to include one person or body corporate or the singular.

Time shall be of the essence of this agreement.

This agreement shall inure to the benefit of the owners, and be jointly and severally binding upon them and each of them, and their respective heirs, administrators, executors, and assigns, or their respective successors and assigns, as the case may be, and shall inure to the benefit of and be binding upon the optionor and his successors and assigns.

15. It is further provided that any claims staked by any of the parties to this agreement that are within a three (3) mile radius of the outside boundaries of the within claims or in any area within the group of claims shall form a part of this agreement and be subject to all the terms and conditions of this agreement, as if they formed a part of this agreement.

16. The optionor hereunder shall have the right to assign his interest in this agreement to any person or persons or syndicate, or any corporate or syndicate of corporate persons.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and affixed their seals on the day and year first hereinabove written.

Arley R. Taylor — Owner

Kenneth E. O'Harra — Owner

SILVER RIDGE MINING CO. LTD.

(SEAL)

By [illegible]
Its President

[illegible]
Secretary

STATE OF Alaska)
Fourth Judicial Dist.) ss.

THIS IS TO CERTIFY, that before me, the undersigned, a Notary Public in and for the State of Alaska, duly commissioned and sworn, personally appeared ARLEY R. TAYLOR, to me known and known to me to be the identical individual named in and who executed the within and foregoing Option Agreement and he acknowledged to me that he signed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this 5th day of May, 1965.

Carol C Pundy
Notary Public in and for the
State of Alaska.
My commission expires: 12/27/66

STATE OF ALASKA)
) ss.
FOURTH JUDICIAL DISTRICT)

THIS IS TO CERTIFY, that before me, the undersigned, a Notary Public in and for the State of Alaska, duly commissioned and sworn, personally appeared KENNETH E. O'HARRA, to me known and known to me to be the identical individual named in and who executed the within and foregoing Option Agreement, and he acknowledged to me that he signed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this 5th day of May, 1965.

Carol C Pundy
Notary Public in and for the
State of Alaska.
My commission expires: 12/27/66

STATE OF ~~ALASKA~~ IDAHO)
COUNTY OF SHOSHONE) ss.
~~FOURTH JUDICIAL DISTRICT~~)

THIS IS TO CERTIFY that on this 17 day of May, 1965, before me, the undersigned Notary Public, duly commissioned and sworn as such, personally appeared H. F. Magnuson, _____ of SILVER RIDGE MINING CO. LTD., a legal entity organized under and by virtue of the laws of the Country of Canada, Province of British Columbia, to me known to be the President of said company, and acknowledged that the seal affixed to the within Option Agreement is the official seal of said company and legal entity and he acknowledged that said instrument was signed and sealed in behalf of said company by authority of its _____, and the said _____ acknowledged said instrument to be the free act and deed of said company and legal entity.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this day and year last hereinabove written.

D L Hess

Notary Public in and for the
State of ~~KLAMATH~~ Idaho.
My commission expires: 1-15-66

CANADA)
)
PROVINCE OF BRITISH COLUMBIA)
)
COUNTY OF KOOTENAY)

This is to certify that on the first day of June, 1965, before me the undersigned Notary Public in and for the Province of British Columbia, by Royal authority duly appointed, personally appeared Frank S. Aikins, Secretary of Silver Ridge Mining Co. Ltd., a legal entity, incorporated under and by virtue of the laws of the Province of British Columbia, to me known to be the Secretary of the said Company and acknowledged that the seal affixed to the within option agreement is the official seal of the said Company and legal entity and he acknowledged that the said instrument was signed and sealed on behalf of the said Compay by authority of its Directors and the said Frank S. Aikins acknowledged the said instrument to be the free act and deed of the said Company and legal entity.

In witness whereof I have hereunto set my hand and affixed my official seal this first day of June, 1965.

Ken Lansner

A Notary Public in and for the
Province of British Columbia.
My Commission expires at the

OFFICIAL
COPY
O. M. E.
RECEIVED
AUG 11 1965

INITIALS	CODE

REPORT

on

THE EAGLE CREEK ANTIMONY MINE

FAIRBANKS, ALASKA

by: H. L. Hill & Associates Ltd.

January 25, 1965

January 25, 1965.

REPORT

on

THE EAGLE CREEK ANTIMONY MINE

FAIRBANKS, ALASKA

This report summarizes the results of exploration work completed by Silver Ridge Mining Company on the property during 1964, and presents recommendations for further development work. The economics of a future operation are also outlined.

SUMMARY AND CONCLUSIONS

Silver Ridge Mining Company optioned the Eagle Creek group of 24 unpatented mineral claims during the Fall of 1964. This property, located 23 miles by good highway north of Fairbanks is a relocation, by Messrs. Taylor and O'Harra, of the old Scrafford Mine. From very shallow workings this mine produced 1,500 tons of high grade ore prior to 1926. This production, at the present market price for antimony, would have a net smelter return value of about $600,000.

Silver Ridge Mining Company completed a short access road and a limited amount of trenching at a cost of about $6,500 before work was suspended due to weather conditions. Trenching work was successful in locating the western extension of the No. 1 vein which, in one open cut, averaged 30% antimony over a width of 2.3 feet.

A new vein (No. 2) was also discovered adjacent to the highway, which averaged 25.8% antimony over a width of 3.0 feet. Neither the full width, length nor depth of the No. 1 or No. 2 veins has been determined.

Summary and Conclusions (Continued)

An underground exploration program, consisting of sinking prospect shafts on ore on both the No. 1 and No. 2 veins, is recommended, at an estimated cost of $70,000.

In view of the past production and the encouraging results obtained from the limited amount of exploration work completed during the Fall of 1964, the writer feels this property has a good chance of becoming a profitable antimony producing mine.

LOCATION

The Eagle Creek Antimony property is located 23 miles by highway north of Fairbanks, of which 15 miles is paved and the remaining eight miles is first class gravelled road. A half mile access road was built during 1964 from the highway to the No. 1 vein. Due to military usage the road from Fairbanks past the property is kept in good repair and open all year round.

The claims cover gently rolling hills. Elevation varies from 2,000 to 2,500 feet. The surface is all covered by muskeg under which one to four feet of permanently frozen black muck covers residual overburden or bedrock.

Fairbanks, a city with a population of 35,000, is serviced by a Government subsidized railway and also a highway from the ports of Anchorage and Seward, as well as a daily jet air service from Seattle.

The 23 mile drive from Fairbanks to the property can be completed in a half hour, thus workmen can live at Fairbanks and commute to work.

CLIMATE

During the six month period from the middle of April to October, weather conditions are good with moderate temperatures, low precipitation and long daylight hours. For the balance of the year, particularly from December to February, temperatures are below zero, with extremes down to -60°. Snowfall averages less than 2.0 feet per year. Daylight hours in the winter months are very short. The surface plant would have to be thoroughly winterized to insure a year around operation.

WATER

The property is located at the headwaters of a tributary of Vault Creek, which is a tributary of the Chatanika River. During the summer sufficient water would be available from a creek on the property for camp and underground purposes. A test well would have to be drilled to determine if sufficient water was available below the permafrost for a concentrating plant. If water is not found on or near the property consideration will have to be given to trucking the crude ore to Fairbanks where electric power and water and other services would be available.

TIMBER

Only small deciduous trees occur on the claims. Therefore, all mine timber would have to be purchased at Fairbanks.

CLAIMS AND OWNERSHIP

The Eagle Creek group, staked by Messrs. Taylor and O'Harra during July and September 1964, consists of the following 24 unpatented mineral claims, all located in the Fairbanks Mining Division, Township 2N and Range 1W.

Name of Claim	Section	No.Claims	Per Claim	Total
Eagle Lode No. 1 to 8 incl.	16	8	20	160
Black Eagle No. 5 to 8 incl.	16	4	20	80
Black Eagle No. 9 to 12 incl.	16	4	40	160
Antimony Ridge No. 1 to 8 incl.	21	8	20	160
Total		24		560

The Black Eagle, No. 5 to 8 inclusive, were staked as 40 acre claims. However, the northern half of each claim covers ground previously staked as the Eagle Lode No. 5 to 8 inclusive.

The No. 1 vein is located on the Eagle Lode No. 6 mineral claim, and the No. 2 vein on the Antimony Ridge No. 6 claim, as shown on the map accompanying this report.

Silver Ridge Mining Company Limited, with head office at Nelson, B. C., holds an option to purchase the Eagle Group of mineral claims from the owners for $400,000, payable by a 7½% royalty from net smelter returns after allowing for freight charges. Minimum expenditures of $10,000 annually on the property, or $10,000 annual payments to the owners, have to be made to keep the option in good standing.

HISTORY

During 1915 E.L. Scrafford leased a group of claims, including the Chief and Sunrise, from Edward Quinn, one of the original owners. The Scrafford property, also known as the Black Eagle Mine, was systematically developed during 1915 by a crew of 25 men. The deposit was worked by an open cut along the vein which was extended into the hill by an adit about 75 feet long in September 1915. During the same period some stoping was done and a shaft sunk 20 feet. The antimony ore was broken and sorted by hand, then hoisted by a 3,000 foot long inclined cable tram to the top of the ridge to the location of the present highway. From the tram head the ore was hauled by teams to the railroad, a distance of 4½ miles.

The last work done, except for leasers sorting the dumps, was done in 1926 by R. C. Wood, who drove the main tunnel in 300 feet and shipped a total of about 1,500 tons of sorted ore.

The above data was taken from U. S. Geological Bulletins.

The claims lapsed and were restaked during July 1964 by Messrs. Taylor and O'Harra.

GEOLOGY AND MINERALIZATION

All the old workings are caved, thus the geology could not be mapped. The following description of the geology and mineralization is excerpted from the 1916 and 1931 Geological Survey Bulletins:

"The country rock is quartz-mica schist. It is finely foliated, and the planes of schistosity strike about N 60° E and dip steeply to the northwest. No intrusive rocks were observed near the lode, but the extension of its strike to the east will bring it close to the dike which cuts the schist. The lode is marked by a shear zone which cuts the foliation of the schist and is readily traceable for several hundred feet at the mine openings. This shear zone strikes nearly east and dips 50° - 70° S. The management reports that the zone of mineralization can be traced through two claims, a distance of about 3,000 feet, but the time available for the examination did not permit an examination of the extension of the deposit.

"In the brief time devoted to the examination, especially in view of the lack of bedrock exposures, it was not possible to definitely determine the width of the shear zone. Where the lode had been opened the limits of ore deposition appear to be within walls 3 to 4 feet apart. Here the hanging wall consists of a mass of iron-stained schist which has been much crushed. The schists were iron-stained and fractured, however, for at least several feet beyond what was considered the hanging wall or lode. Moreover, the manage- reports the shear zone to be 10 feet wide in some places.

Geology and Mineralization (Continued)

"The richest ore occurs in shoots, which appear to be pod or lens shaped, whose longer axes have a trend that diverges 15° to 20° from the trend of the vein. The largest of these shoots measured about 40 feet in its longest dimension. The shoots are separated by an aggregate of quartz intergrown with stibnite and kidneys of stibnite, together with iron-stained fragments of the schist forming the country rock. These fragments of schist included in the lode consist of quartz grains with films of sericite and have a parallel arrangement of minerals. They also include some vein quartz and sulphides. Stibnite is the only important metallic mineral in the lode, but a little free gold and galena are also present and probably pyrite, though this was not seen in unoxidized form. The management reports that the highest assay value obtained was $4 worth of gold and 8 ounces of silver to the ton, and only a trace of lead."

"The stibnite occurs in finely fibrous and columnar form as well as in granular aggregates. The surface of the masses of stibnite shows considerable oxidation; secondary minerals form an incrustation half an inch or more in thickness. It appears that the subsoil at this locality was not permanently frozen, probably owing to the southern exposure of the locality where the lode has been opened. This situation has probably favored oxidation. The larger ore shoots, which appear to consist of almost pure stibnite, nearly all seem to contain some quartz, which in part occurs in visible aggregates, in part in fine grains only recognizable with a lens. This quartz is vitreous, as is also that which forms part of the matrix in which the shoots and kidneys are contained."

"There is a considerable accumulation of mixed ore and screened waste still on the dumps. Apparently this material could be concentrated by jigging to yield a marketable product if the price of antimony should warrant reopening this mine. Samples of various types of ore on the dump indicate that the gold and silver in the ore probably does not exceed $2.43 a ton even in those parts where the vein consists of a mixture of iron-stained quartz and stibnite."

A map accompanying this report is an interpretation of the geology described above.

1964 EXPLORATION RESULTS

(1) No. 1 Vein

Due to permafrost stripping by bulldozer has been difficult. The muskeg and part of the black muck was removed on the western extension of the vein for 100 feet. Only in the eastern 15 feet was bedrock exposed. In this section the western extension of the vein was encountered. Samples taken assayed as follows:

Sample No.	Width-ft.	Sb. %	Remarks
2117	1.5	52.21	High grade lens
2118	2.0	53.04	Sb oxide plus stibnite
2119	2.0	24.04	Sb oxide
2120	1.5	26.16	Sb oxide
2121	grab	12.75	Sb oxide

The first two samples represent a width of 3.5 feet. The third sample is five feet west and a fourth is a further five feet west. The samples represent the western extension of the vein over a length of 15 feet and average 30% Sb over a width of 2.3 feet. The writer would estimate that approximately 50% of the antimony occurs as sulphide and the remainder as an oxide. At a fairly shallow depth the oxides will be in the form of sulphides.

Test work has indicated a 59% recovery can be made from the sulphide and oxide ore, as represented by the above samples. On this basis, after allowing for freight, mill recovery and royalty, 30% ore has a net smelter return of $100 per ton.

Neither the full width or strike length of the western extension of the No. 1 vein has been determined.

(2) No. 2 Vein

Insufficient work has been completed to date to enable an assessment of this vein to be made. It was discovered during late October 1964. One trench has shown three lenses of ore, one of which appears continuous over a length of 60 feet. Milling grade could occur over a width of 10 feet. Four samples taken by the writer averaged 25.80% antimony over 3.0 feet, as shown on the map accompanying this report.

DUMPS

When the property was first examined, on September 10, 1964, two samples taken from the dumps averaged 30.1% antimony, which was considerably higher than anticipated. The value of these assays, together with the intriguing description of the property in the U.S. Geological Bulletins, prompted the recommendation to option the property and undertake an exploration program.

On the writer's second visit to the property, on October 1st, two samples were taken from the largest dump, which averaged 30.5% Sb, and also three bulk samples which assayed as follows:

Dump No.	Estimated Tonnage	% Sb
1	800	26.33
2	100	21.05
4	800	17.86
	1,700	22.50

Due to the lack of test pits on the dumps the tonnage of dump ore was reduced from 1,700 to 1,000 tons.

Assuming a 58.6% recovery, the dump has a net smelter return value of $75 per ton, or a total of $75,000 for the conservative estimate of 1,000 tons.

The value of the dump ore confirms the U.S. Geological Survey statements that disseminated antimony ore occurs in the shear zone between the high grade lenses which were shipped.

On a basis of milling at a rate of 50 tons per day, milling costs are estimated at $10 per ton, overhead at $5 per ton and handling dump ore to the mill at $2 per ton, giving a total cost of $17 per ton. The operating profit on the dump ore would be as follows:

	Per Ton	Total for 1000 tons
Net smelter returns	$75.00	$75,000
Operating costs - milling $10 overhead 5 loading 2	17.00	17,000
Operating profit	$58.00	$58,000

In view of the profit potential from the dump ore, it is recommended that test pits be dug to accurately determine both grade and tonnage of the dumps.

METALLURGY

The following reports have been received from Britton Research Laboratories covering work on oxidized ore from the dumps. These letter reports were addressed to the writer and signed by John W. Britton, P. Eng., Consulting Metallurgist.

September 29, 1964.

" Re: Concentration tests on antimony ore

We give below a summary of the tests carried out on the sample of weathered antimony ore which we received from you on September 10, 1964:

Assay of ore:

Antimony (total) Sb 24.85%
Sulphur (total) S 5.01%, equivalent to 12.65% Sb, or 51% of the total antimony in the ore. The remainder of the antimony was probably present as stibiconite (antimony ocher), $Sb_2O_4.H_2O$, possibly with other oxide minerals such as cervantite, Sb_2O_4.

Concentration tests:

(a) Table concentration: An attempt was made to concentrate the antimony on a Wilfley table, after crushing to minus 10 mesh. The resulting concentrate was, however, of low grade, due to incomplete liberation from silica. In addition, a heavy loss of antimony occurred in the tailings, owing to the tendency for the stibnite to slime readily. The grade of concentrate could be increased by finer grinding of the ore, but the antimony recovery would be poor, unless tabling is followed by flotation of the table tailings.

(b) Flotation: A sample of the ore was ground to 59% minus 200 mesh and floated, using soda ash, sodium cyanide, lead acetate, isopropyl xanthate, Dowfroth 250 and pine oil as reagents; the rougher concentrate was cleaned three times.

September 29th, 1964 (Continued)

"The final concentrate weighed 13.1% of the feed and assayed 60.71% Sb, 0.15% As and 0.02% Pb (assays by Coast Eldridge Engineers and Chemists Ltd.; a check assay carried out in our laboratory gave 0.06% Pb). The recovery in the final concentrate was equal to 41.8% of the total antimony in the ore, or 81.6% of the stibnite. Allowing for recirculation of the cleaner tailings and scavenger concentrate, it is expected that at least 85% of the stibnite would be recovered in a concentrate assaying over 65% Sb, with less than 0.3% As plus Pb, when treating similar ore in a full scale mill."

* * * * * *

October 21, 1964.

"Re: Antimony ore assays - dump samples received October 7, 1964

This is to confirm the following assays and calculations, which were given to you by phone last week:

Sample	Total Sb %	Total S %	Sulphide Sb% (calc.) *	Oxide Sb% (calc. by diff.)	Proportion of sulphide Sb %
Dump No.1	26.33	4.63	11.72	14.61	44.5
Dump No.2					
Plus ½"	22.75	5.73	14.51	8.24	63.8
Minus ½"	19.17	1.93	4.63	14.54	24.2
Overall	21.05	3.88	9.83	11.23	46.7
Dump No.4	17.83	3.50	8.86	9.03	49.6

*Assuming all sulphur was present as antimony sulphide.

52.6% of the dump No. 2 sample as received was coarser than ½". In order to determine whether the fines were low enough in stibnite to be discarded, the plus and minus ½" fractions were assayed separately. 77.7% of the antimony sulphide was in the plus ½" fraction, but the minus ½" fraction still contained enough stibnite to be worth treating."

* * * * * *

December 16, 1964.

Re: Antimony ore concentration

As agreed during our conversation on December 4, we have carried out a flotation and tabling test on a composite sample of partially oxidized ore from dumps 1, 2 and 4 (equal weights).

The ore was ground to 60% minus 200 mesh and the stibnite was floated. The rougher concentrate was cleaned twice and the cleaner tailings were combined with the rougher tailing and tabled in order to recover the antimony oxide minerals. The table concentrate was cleaned twice and then panned, but the grade improved only slightly in the second cleaning and panning operations. The recleaner tailing and panning tailing were therefore recombined with the panning concentrate to reform the concentrate after one cleaning. Results were as follows:

Assay of head sample: 21.75% Sb.

	Flotation Conc.	Table Conc.	Combined Concs.
Weight % of head	11.1	9.8	20.9
Assay of concentrate: % Sb	68.5	52.5	61.0
% As	0.10	1.22	0.63
% Pb	0.08	0.01	0.05
Antimony recovery %	34.9	23.7	58.6

* * * * * *

ANTIMONY PRICE

Antimony is sold and quoted in the E & M.J. Mineral Markets as a metal (99.5% Sb) and as antimony ore (50 - 65% Sb). The present price is 55¢ to 60¢ per lb. for the metal which is a smelter product, and about $8.00 per unit, or 40¢ per lb. of contained antimony in crude ore. The price paid for antimony concentrates, due to pelletizing costs, is generally 5 to 10% lower than the price paid for crude ore. The prices quoted in the E & M.J. Mineral Markets are generally C.I.F. buyer's port.

Antimony Price (Continued)

During the ten year period prior to April 1963, the price of antimony remained fairly steady at $4.00 per unit, or 20¢ per lb. Due principally to the withdrawal of Chinese antimony from the world markets the price of antimony increased during 1963 up to $9.40 per unit, or 45¢ per lb. The present price is now $8.00 per unit, or 40¢ per lb. Due to the following factors the price of antimony should stabilize well above the old price:

(a) Antimony buyers, because of the uncertainty of a continuous supply of the Chinese ore, would welcome other production. The Chinese ore is comparatively low grade, averaging only 50% to 55% Sb.

(b) A world-wide demand for antimony supports a good market.

ANTIMONY MARKET

Research work completed to date indicates there should be a good market for antimony ores or concentrates produced in Alaska.

During 1963 the United States imported about 15,000 tons of antimony ore and concentrates, 80% from Mexico and South Africa. At the present metal prices the gross value of the U.S. imports would amount to about $10,000,000.

Japan estimated their imports from 1965 at 9,000 tons, of which they expect 3,000 tons would come from Red China and most of the remainder from Bolivia. The value of the Japanese imports of antimony ore and concentrates would amount to about $7,000,000.

Canada imports about 500 tons of antimony ore per year from Red China.

A portion of either the United States or Japanese market should be available to Silver Ridge. The action of Red China in withholding exports of antimony to the free world, in the Spring of 1964, caused a sharp increase in price. The writer is of the opinion that both the Japanese and the United States antimony consumers would prefer a more reliable source of supply. South African and Bolivian exports could also be effected by politics.

Antimony Market (Continued)

Negotiations are now under way between Silver Ridge and Sumitomo Shoji Kaisha Ltd., who are members of the Japanese antimony pool, for the tentative sale of antimony concentrates on the basis of the world price C.I.F. Japan, delivery date and also a floor price, for a two year period from 200 to 300 tons of concentrates per month.

If satisfactory arrangements cannot be made with Sumitomo negotiations will commence with the United States consumers. The most important factor, in the writer's opinion, is the establishment of a floor price which would be sufficiently high to enable Silver Ridge to operate at a profit even if, for some reason, the present market for antimony collapsed.

ECONOMICS OF A FUTURE OPERATION

The following calculations have been made to determine the economics of antimony production at various market prices on various grades of mill feed ore. Calculations are based on milling at a rate of 50 tons per day. Operating costs, mining, milling and overhead, are estimated at $30 per ton, or $45,000 per month. No allowance has been made for income taxes.

Net Smelter Returns

1500 tons ore per month

Grade of mill feed	5.0%	10.0%	15.0%	20.0%
Recovered head @ 85% recovery	4.25%	8.50%	12.75%	17.0%
Tons/month of 60% concentrate	106	212	318	424
Net smelter return value -				
@ $8.00 per unit	$36,000	$73,000	$109,500	$146,000
@ $7.00 per unit	31,000	62,000	93,000	124,000
@ $6.00 per unit	26,000	52,000	78,000	104,000
@ $5.00 per unit	20,500	41,000	61,500	82,000
@ $4.00 per unit	15,500	31,000	46,500	62,000

Operating Profit

1500 tons ore per month

Price per Unit	Mill Heads			
	5% Sb	10% Sb	15% Sb	20% Sb
$8.00	-	28,000	64,500	101,000
7.00	-	17,000	48,000	79,000
6.00	-	7,000	33,000	59,000
5.00	-	-	16,500	37,000
4.00	-	-	1,500	17,000

SUMMARY

The above calculations indicate that a floor price of $6.00 per ton would be required on the basis of 10% Sb mill heads and a sales contract for a minimum of 200 tons of concentrates per month.

The economics of shipping high grade crude ore, unless large lenses of high grade ore are encountered, is not attractive due to cobbing costs.

1965 EXPLORATION PROGRAM

Two 50 foot prospect shafts should be sunk on the No. 1 and No. 2 veins together with a limited amount of drifting. This work, if in ore, should develop sufficient tonnage to bring the property into production at a milling rate of 50 tons per day. This program, which is estimated to cost $70,000, should be completed by June 30, 1965.

Following is a list of equipment requirements.

1 only	600 cu. ft. compressor	$10,000
3 only	Jack hammers and legs	3,000
10 only	25 h.p. tugger hoists	2,500
2 only	vehicles	5,000 - ?
1 only	trailer (dry, office, warehouse)	4,000
1 only	head frame, ore bin, etc.	5,000
	Miscellaneous small equipment	2,000
	Transportation	1,000
		6/ $32,500 54%
Sinking, labor and supplies - 100 ft. @ $300 per foot		30,000
Engineering, transportation, etc.		7,500 - 1,250
		$70,000

CONCLUSIONS

The Silver Ridge Mining Company's Eagle Creek antimony deposit at Fairbanks is considered to be a prospect of merit. At the present time there are no proven ore reserves except 1000 tons of dump ore which by milling would return an operating profit of $50,000.

Conclusions (Continued)

Due to the success encountered by the limited amount of work completed during the Fall of 1964, and to the past production record of the mine, we feel the prospect has good possibilities of becoming a successful producer, and thus would recommend that the $70,000 program be undertaken.

H. L. HILL & ASSOCIATES LTD.

Henry L. Hill

HLH/mjr

APPENDIX

to

REPORT, DATED JANUARY 25, 1965,

on

THE EAGLE CREEK ANTIMONY MINE

FAIRBANKS, ALASKA

The net smelter return values used in our report of January 25th, 1965 on the Eagle Creek Antimony Mine, on Page 12, were determined after making the following deductions.

1. FREIGHT AND HANDLING - 5¢ per lb. Sb.

The following costs are based on the production of a 60% concentrate from a milling operation at the mine, and shipment and handling to Japan. Lesser charges would be applicable for shipment via Anchorage to Japan or to United States west coast ports:

	Per Ton Concentrate	Per Lb. Sb.
Trucking - mine to Fairbanks	$ 5.00	0.45¢
Loading at Fairbanks	1.00	0.10
Rail and boat freight - Fairbanks-Anchorage-Vancouver	23.00	1.93
Unloading at Vancouver and storage	3.00	0.25
Loading on boat - Vancouver	3.00	0.25
Ocean freight - Vancouver to Japan	18.00	1.50
Insurance	1.00	0.10
Miscellaneous (allowance for moisture)	6.00	0.50
	$60.00	5.0 ¢

2. PENALTY FOR FINES - 10%

When calculating net smelter returns a maximum penalty of 10% was deducted for fines. It is understood the penalty varies from 5% to 10%, thus there is the possibility of a reduction in the penalty charges.

3. ROYALTY - 7½%

The royalty of 7½% payable to the owners up to $400,000 is calculated after freight and treatment charges and, depending on the price of antimony ore, will vary from 2¢ to 4¢ per lb. of antimony.

The following table shows the net smelter return value based on various C.I.F. Japan prices for antimony ore:

Quoted Price		Deductions			Net Smelter Return Value		
Per Unit	Per Lb.Sb	10% Fines Penalty	Freight etc.	Royalty	Per Lb.Sb	Per Unit	Per Ton 60% Cons.
$8.00	40¢	4.0¢	5.0¢	2.3¢	28.7¢	$5.74	$344.00
7.00	35	3.5	5.0	2.1	24.4	4.88	293.00
6.00	30	3.0	5.0	1.6	20.4	4.08	245.00
5.00	25	2.5	5.0	1.3	16.2	3.24	194.00
4.00	20	2.0	5.0	1.0	12.0	2.40	144.00

Although the current E & M.J. price for antimony metal is about 55¢ per lb. and the price of antimony ore is 40¢ per lb. of contained antimony, the realized price, after the above deductions, would be 28.7¢ per lb. of antimony.

After allowing for a minimum milling recovery of 85% the net price which could be applied to the mill heads would be 25¢ per lb. Thus 10% mine ore would have a value of $50.00 per ton, from which would have to be deducted all operating and overhead costs.

A floor price of $6.00 per unit C.I.F. Japan would produce a net return value of 17.3¢ per lb. Thus 10% mill heads would have a value of $34.60 per ton, which is only slightly above the estimated operating cost of $30.00 per ton.

H. L. HILL & ASSOCIATES LTD.

Henry L. Hill

Henry L. Hill

February 17, 1965.

HLH/mjr

APPENDIX

to

REPORT DATED JANUARY 25, 1965

on

THE EAGLE CREEK ANTIMONY MINE

FAIRBANKS, ALASKA

The net smelter return values used in our report of January 25th, 1965 on the Eagle Creek Antimony Mine, on Page 12, were determined after making the following deductions.

1. FREIGHT AND HANDLING - 5¢ per lb. Sb.

The following costs are based on the production of a 60% concentrate from a milling operation at the mine, and shipment and handling to Japan. Lesser charges would be applicable for shipment via Anchorage to Japan or to United States west coast ports:

	Per Ton Concentrate	Per Lb.Sb.
Trucking - mine to Fairbanks	$ 5.00	0.46¢
Loading at Fairbanks	1.00	0.10
Rail and boat freight - Fairbanks, Anchorage to Vancouver	23.00	1.93
Unloading Vancouver and storage	3.00	0.25
Loading on boat - Vancouver	3.00	0.25
Ocean freight - Vancouver to Japan	18.00	1.50
Insurance	1.00	.10
Miscellaneous (allowance for moisture)	6.00	.50
	$60.00	5.0 ¢

2. PENALTY FOR FINES - 10%

When calculating net smelter returns a maximum penalty of 10% was deducted for fines. It is understood the penalty varies from 5% to 10%, thus there is the possibility of a reduction in the penalty charges.

3. ROYALTY - 7½%

The royalty of 7½% payable to the owners up to $400,000 is calculated after freight and treatment charges and, depending on the price of antimony ore, will vary from 2¢ to 4¢ per lb. of antimony.

The following table shows the net smelter return value based on various C.I.F. Japan prices for antimony ore:

Quoted Price		Deductions			Net Smelter Return Value		
Per Unit	Per Lb.Sb	10% Fines Penalty	Freight etc.	Royalty	Per Lb.Sb	Per Unit	Per Ton 60% Cons.
$8.00	40¢	4.0¢	5.0¢	2.3¢	28.7¢	05.74	$344.00
7.00	35	3.5	5.0	2.1	24.4	4.88	293.00
6.00	30	3.0	5.0	1.6	20.4	4.08	245.00
5.00	25	2.5	5.0	1.3	16.2	3.24	194.00
4.00	20	2.0	5.0	1.0	12.0	2.40	144.00

Although the current E & M.J. price for antimony metal is about 55¢ per lb. and the price of antimony ore is 40¢ per lb. of contained antimony, the realized price, after the above deductions, would be 28.7¢ per lb. of antimony.

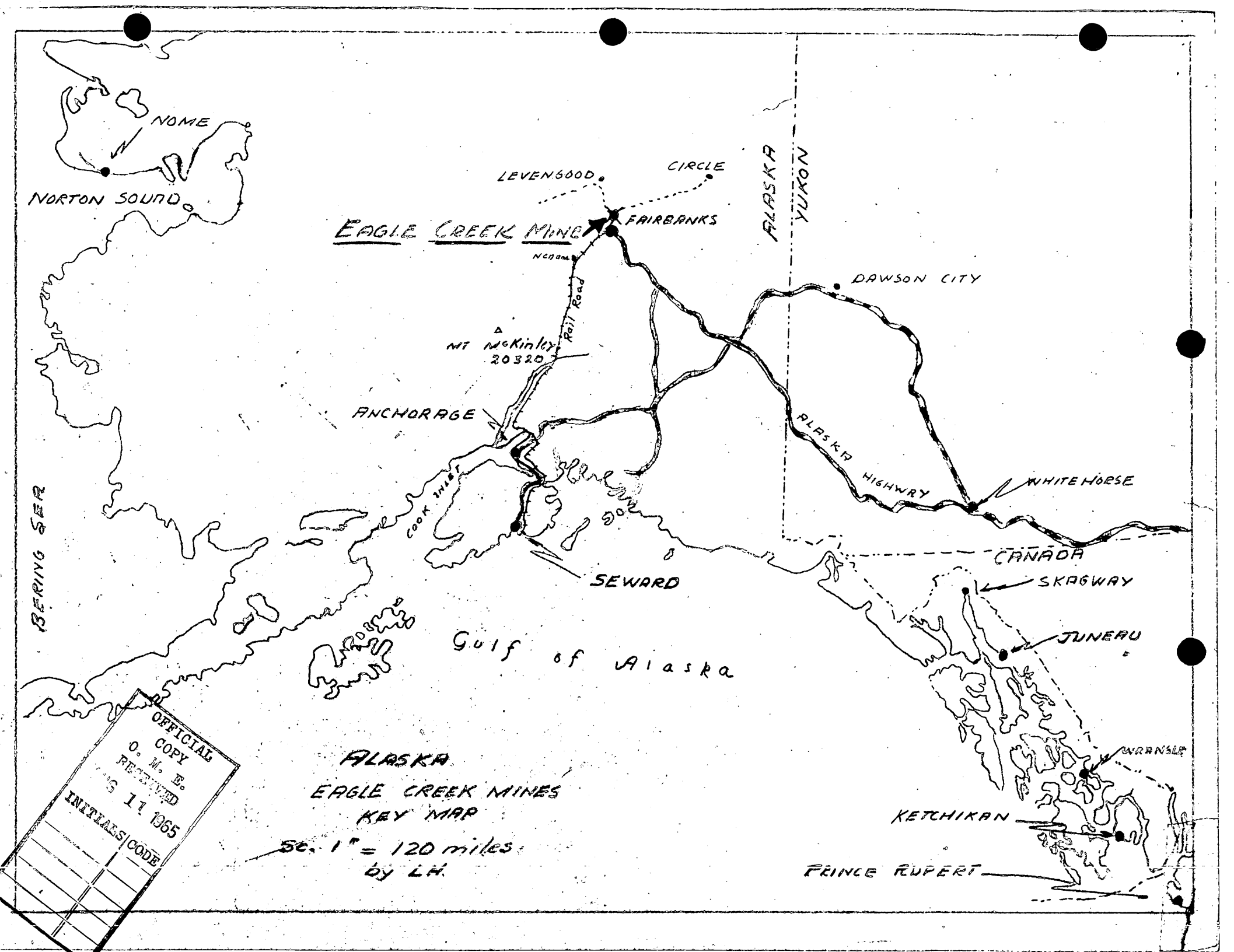
After allowing for a minimum milling recovery of 85% the net price which could be applied to the mill heads would be 25¢ per lb. Thus 10% mine ore would have a value of $50.00 per ton, from which would have to be deducted all operating and overhead costs.

A floor price of $6.00 per unit C.I.F. Japan would produce a net return value of 17.2¢ per lb. Thus 10% mill heads would have a value of $34.40 per ton, which is only slightly above the estimated operating cost of $30.00 per ton.

H. L. HILL & ASSOCIATES LTD.

Henry L. Hill

February 17, 1965.



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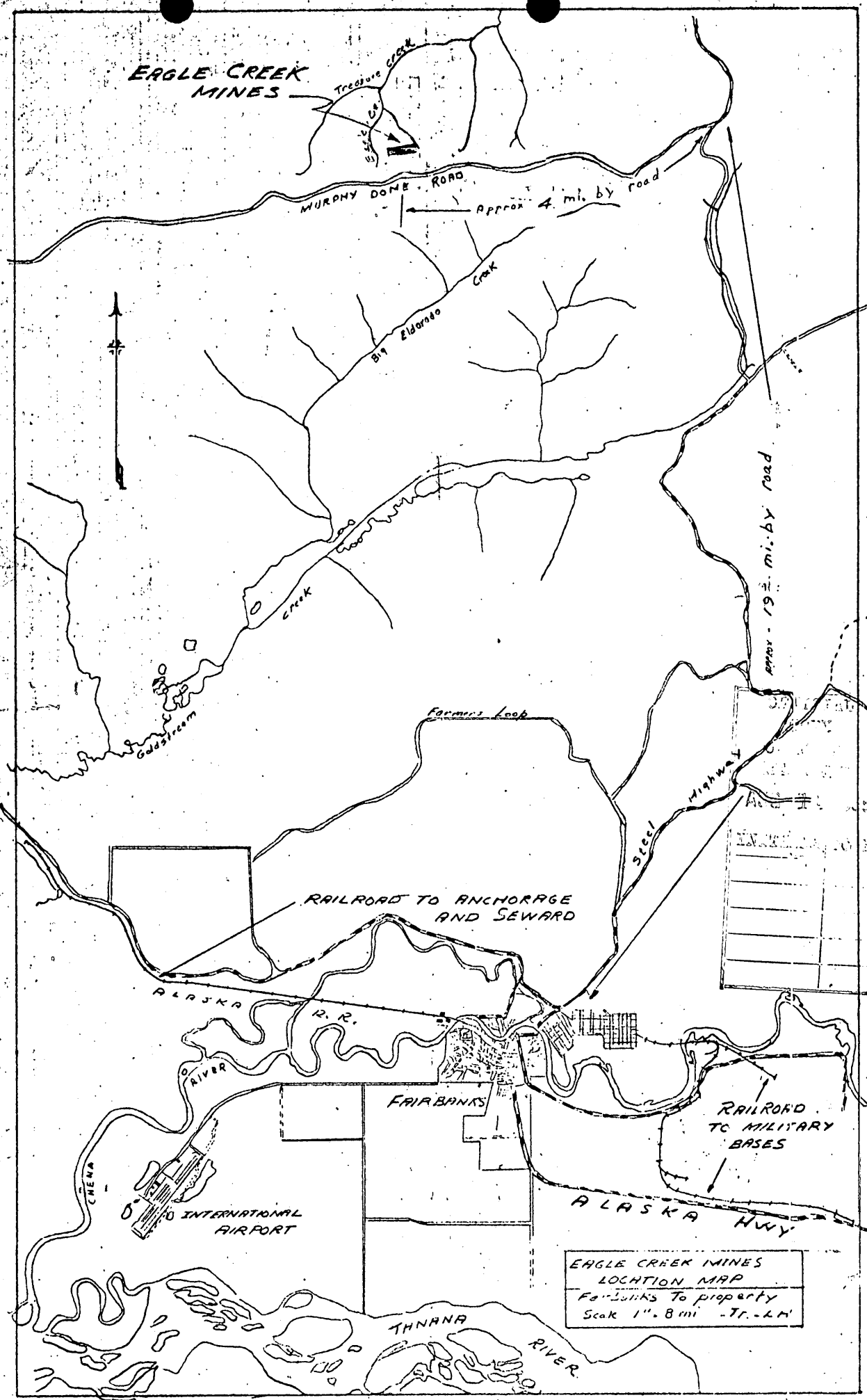

To accompany report by H. Hill & [redacted] & Associates

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
		110
		~~220~~
		270

March 23, 1966

Memorandum

To: The File

From: Chief, Office of Minerals Exploration

Subject: OME-6488 (Antimony)
Silver Ridge Mining Company, Ltd.
Eagle Creek Antimony Mine
Fourth Judicial Division, Alaska

No word has been received from the applicant since his letter of January 17, 1966. In accordance with our letter to him of January 24, 1966, the subject docket is referred to the inactive file and considered as having been withdrawn.

Frank E. Johnson

Frank E. Johnson

cc: Director's Reading File
Division File
Economic Geology File
OME Reading File
Region I
120M

MMerrithew/mm (3/23/66)

23263.

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/24	Johnson	110
	Selfridge	120
1/24	Cole	220
		110

JAN 24 1966

Mr. Henry L. Hill
H. L. Hill & Associates, Ltd.,
844 West Hastings Street
Vancouver 1, B. C.
CANADA

Re: OME-6488 (Antimony)
Silver Ridge Mining Company, Ltd.,
Eagle Creek Antimony Mine
Fourth Judicial Division, Alaska

Dear Mr. Hill:

In reply to your letter of January 17, 1966, we will hold the file open on the subject application until March 21, 1966. If by that date we have not heard further from you or the applicant we will consider the file closed.

Sincerely yours,

(signed) FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

FEJohnson/bih
1/24/66

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region I
OME Mr. Selfridge

23263

OFFICE PHONE:
MUTUAL 3-5861

RESIDENTIAL PHONE:
H. L. HILL—WALNUT 2-7996

H. L. HILL & ASSOCIATES LTD.

CONSULTING MINING ENGINEERS
844 WEST HASTINGS STREET
VANCOUVER 1, B.C.

OFFICIAL
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JAN 20 1966
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120M
~~120~~
110

January 17, 1966.

United States Department of the Interior,
Office of Minerals Exploration,
Washington 25, D. C.

Attention: Mr. F. E. Johnson, Chief,
Office of Minerals Exploration

OME-6488

Dear Sirs:

Re: O.M.E. - Antimony - Silver Ridge

We have hesitated, with approval of the Directors of Silver Ridge, to forward the additional information required for financial assistance for the above property, due to the decline in the price of antimony and also to the fact that a suitable extension has not been received to date from the owners of the property. I might add that our consulting firm has been extremely busy during the past few months in the Pine Point area of the Northwest Territories.

We have today written to the vendor of the property for an extension of the option and will try to appraise a future market for antimony within the next month, after which the matter of a future program will be taken up with Mr. H. Magnuson, president of Silver Ridge.

In view of the above, we would request that you hold our file open for the next 90 days at least.

Yours very truly,

H. L. HILL & ASSOCIATES LTD.

Henry L. Hill

HLH/mjr
cc: H. F. Magnuson.

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
12/20		120
12/21	Johnson	110
12/22		220
		120M

DEC 21 1965

Silver Ridge Mining Co., Ltd.
P. O. Box 540
577 Baker Street
Nelson, British Columbia, Canada

Re: OME-6488 (Antimony)
Silver Ridge Mining Co., Ltd.
Eagle Creek Antimony Mine
Fourth Judicial Division, Alaska

Gentlemen:

On August 20 and November 18, 1965, we wrote you in regard to additional information necessary to continue the processing of your application for financial assistance in exploration. To date, we have not received any reply to our letters.

If you need additional time to prepare the requested information, please let us know. If we do not receive a reply from you within thirty days from the date of this letter, we must assume that you are no longer interested in proceeding with your application, and we shall consider it as having been withdrawn.

Sincerely yours,

(signed) FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

GCSelfridge/gla (12-20-65)
cc to: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
OME Region I
Mr. Selfridge

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/18	Selfridge	120
"	Johnson	110
11/18	cc	220
		120M

NOV 18 1965

Silver Ridge Mining Co., Ltd.
P. O. Box 540
577 Baker Street
Nelson, British Columbia, Canada

Re: OME-6488 (Antimony)
Silver Ridge Mining Co., Ltd.
Eagle Creek Antimony Mine
Fourth Judicial Division, Alaska

Gentlemen:

On August 20, 1965, we wrote you requesting additional information necessary to continue the processing of your application for financial assistance in minerals exploration. To date, we have not received an answer. Will you please inform us as to when we may receive the required information. If you are no longer interested in following the application, will you please so inform us.

Sincerely yours,

(signed) FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

GCSelfridge/gla (11-18-65)
cc to: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
OME Region I
Mr. Selfridge

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
8/20	Johnson	110
	On leave	120
9/20	coe	220
		120M

AIRMAIL

Silver Ridge Mining Co., Ltd.
P. O. Box 540
577 Baker Street
Nelson, British Columbia, Canada

AUG 2 0 1965

Re: OME-6488 (Antimony)
Silver Ridge Mining Co., Ltd.
Eagle Creek Antimony Mine
Fourth Judicial Division, Alaska

Gentlemen:

A review of the subject application reveals the need for additional information in order for us to continue with its processing.

Only one copy of a bank letter was included in the application and we have not received the letter from the First National Bank of Fairbanks referred to in your transmittal letter of July 30, 1965. In addition to the copies of replies from at least two banks, we require copies of your requests to the banks for a loan.

The copy of the Option Agreement submitted, under the listing of claims, shows "Eagle Lode No. 5 to No. 12, inclusive." From the claims listed in the report by Mr. M. L. Hill and shown on the maps submitted it appears that this group of claims should be the "Black Eagle Lode Nos. 5 to 12, inclusive." Please advise which listing is correct.

Because the property is held under option, Lien and Subordination Agreements from the owners are necessary. Also, if a contract can be granted, it will be necessary that you provide us with a Performance Bond by an acceptable bonding firm. A copy of each of these papers is enclosed.

Continuity of the veins and mineralization on your property over any extended distance is not indicated by the data submitted. Also, the workings on the property are reported to be inaccessible. Therefore, before an examination of the property by a Government representative could be authorized, we should have more information to justify your proposed exploration. Information as to any outcrops, exposures in trenches or pits along the strikes of the veins, and the occurrence of float, with the results of representative samples taken of any mineralization, should be submitted.

23263

Perhaps a core-drilling program should be considered in exploring the property. Such a program would give information to permit the most appropriate shaft location and to indicate the possible extent and expense of development of the property that might be warranted. With this type of approach, at least two bids from independent drilling contractors should be submitted in support of your cost estimate.

The cost estimates submitted for shaft sinking and drifting appear to be too high even for Alaska operations. A breakdown in support of your cost estimates should be given as to labor, and material and supplies. The number, types, and wages per day of employees expected to be employed on the exploration work should be given. Supervision and engineering should be given as to the number to be employed and monthly salaries for each of these services. A charge for equipment is allowed only for the actual equipment necessary to be used in the exploration and for the time actually used. This is usually based upon amortizing the fair value of such equipment over a period of sixty months for those months actually used. A revision and breakdown of costs as outlined above should be given.

This request for additional information should not be construed that a contract will be granted. Its prompt submission, however, will enable us to expedite the processing of your application.

Sincerely yours,

(signed) FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

(RH)

Enclosures

FEJohnson/gla (8-20-65)
cc to: Division File
Director's Reading File
Economic Geology File
OME File
OME Reading File
OME Region I (2)

August 11, 1965

Silver Ridge Mining Co., Inc.
P. O. Box 540
577 Baker Street
Nelson, B. C., Canada

Subject: OME-6488

Gentlemen:

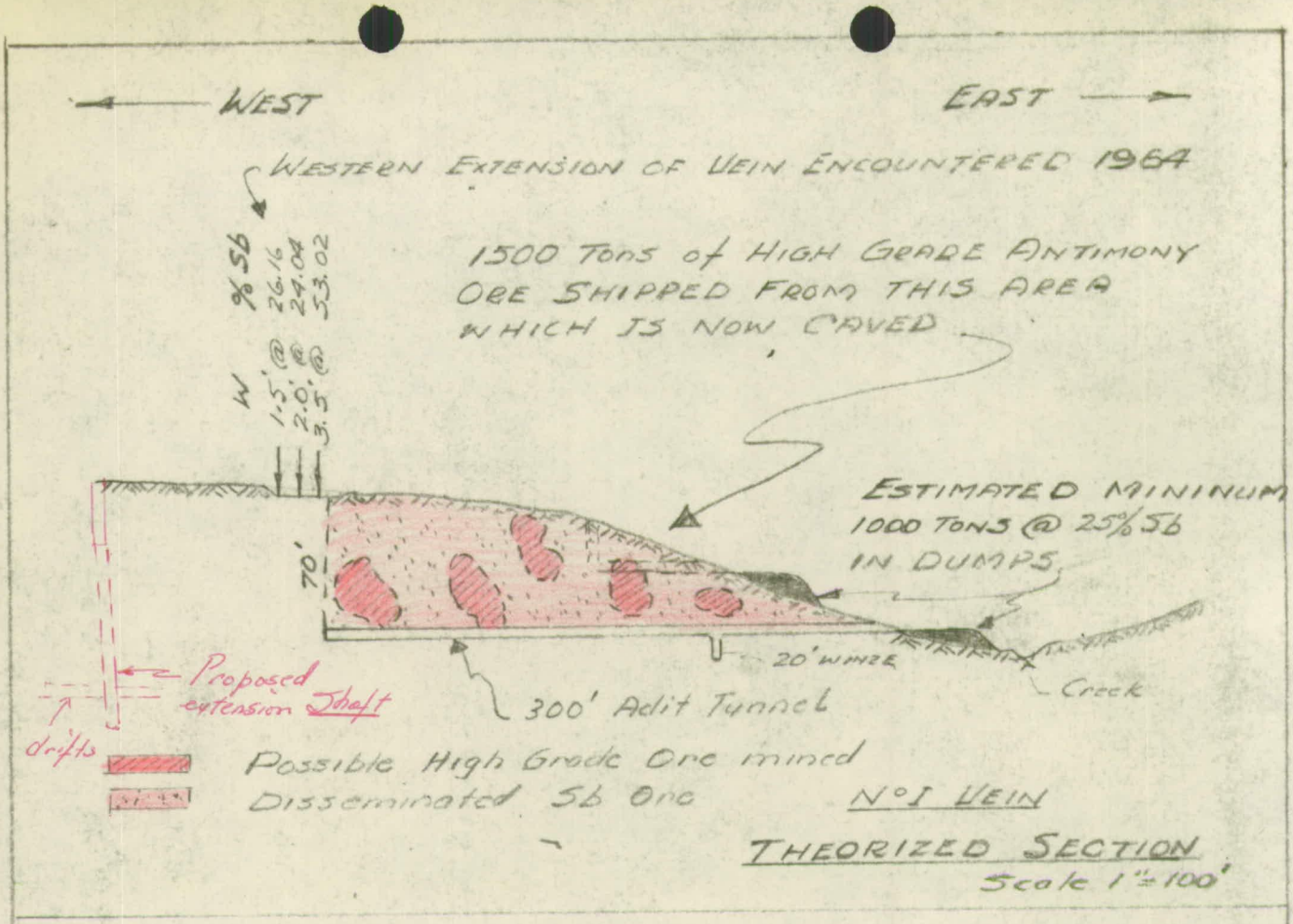
Your application for exploration assistance, dated July 14, 1965, submitted to our office at Spokane, Washington, has been assigned Docket Number OME - 6488.

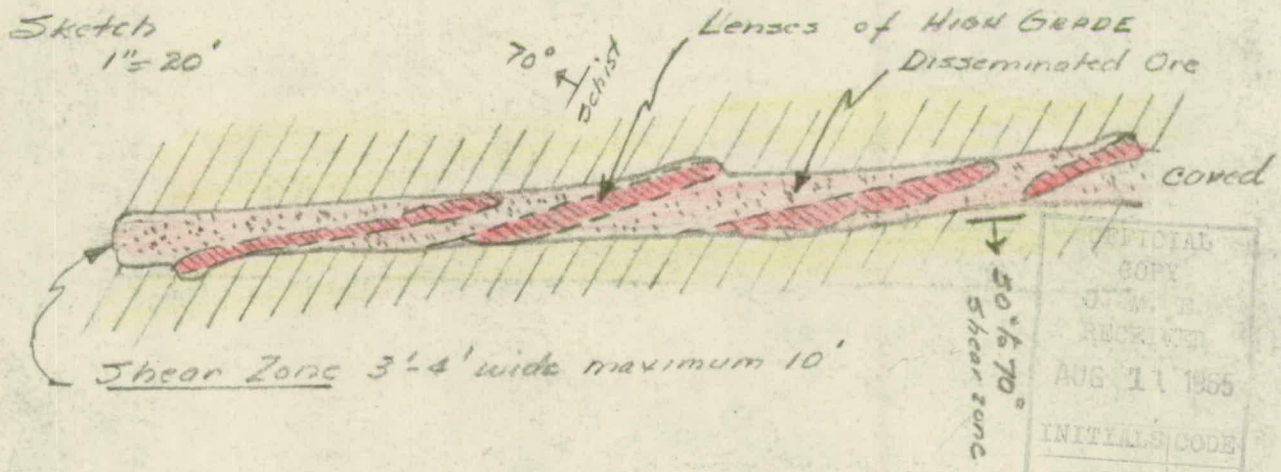
Please identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to Region I





NOTE Geology reconstructed from from U.S. Geological Survey Bulletin Nº 649 - 1916

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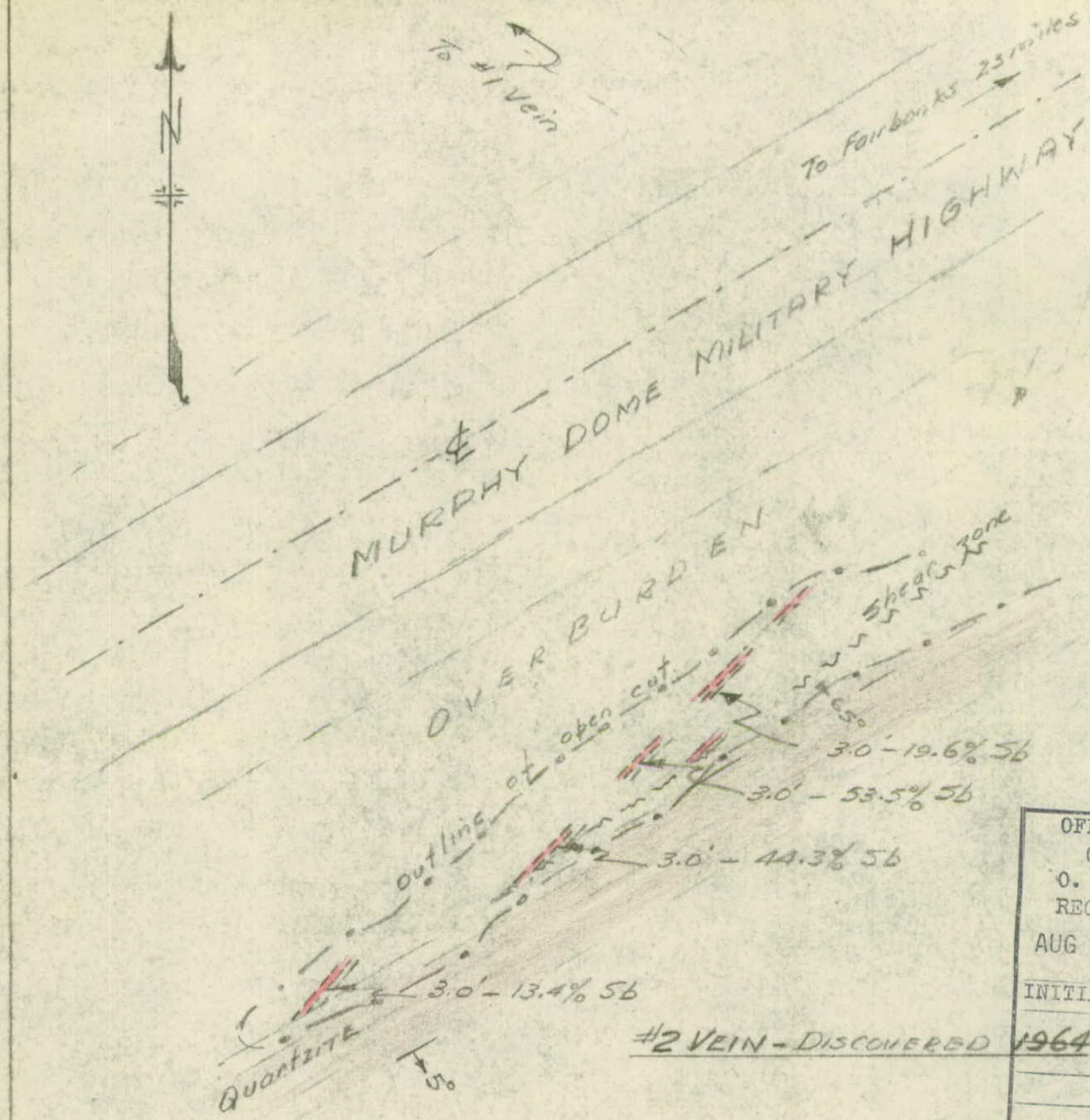
EAGLE CREEK GROUP
Sketch
#1 VEIN

To accompany report by
H.L. HILL & ASSOCIATES LTD

Jan/65 HLH.



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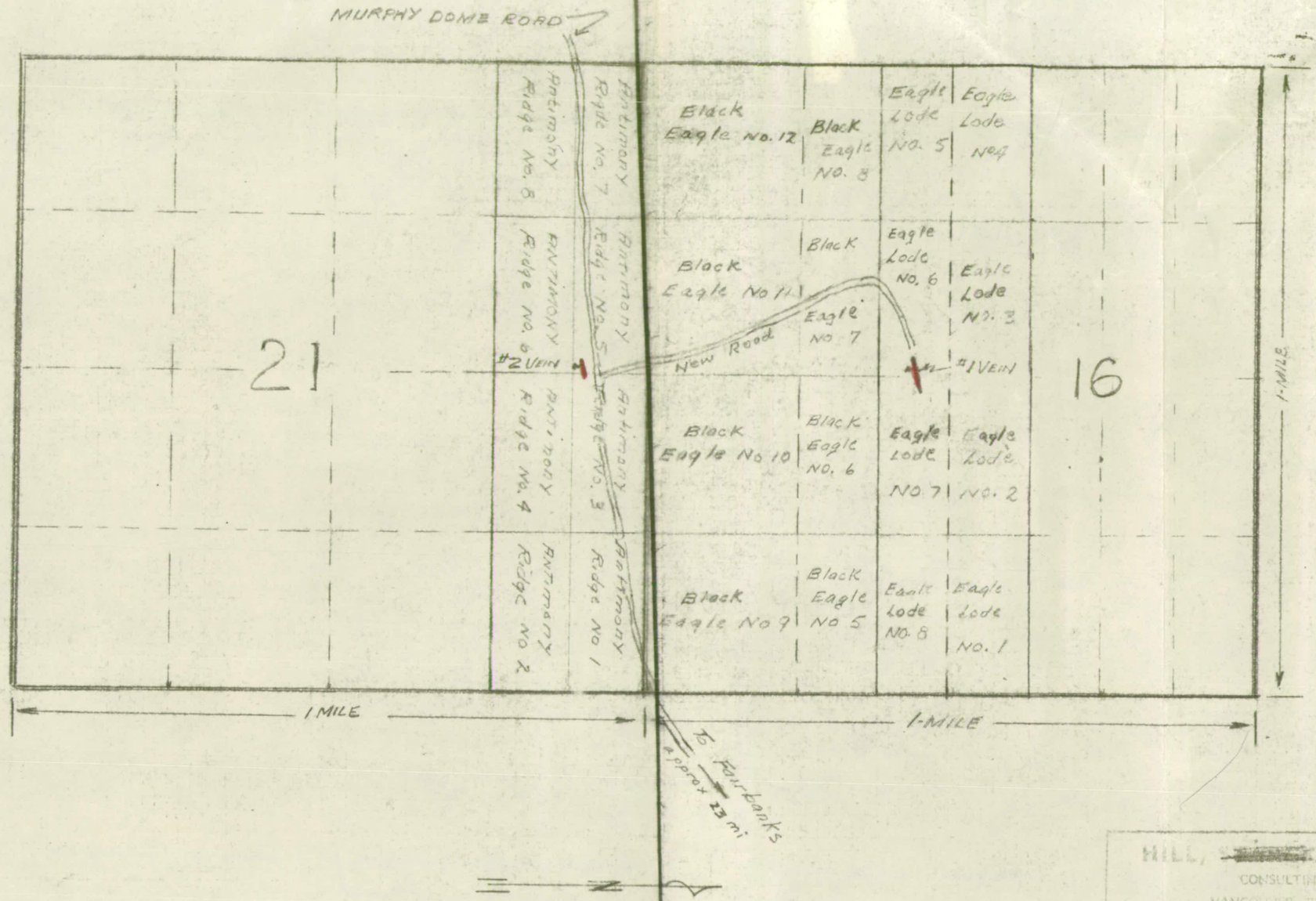
Note - Insufficent work completed to definetely define structure

H. L. HILL & ASSOCIATES LTD.
CONSULTING ENGINEERS
VANCOUVER, BRITISH COLUMBIA

EAGLE CREEK GROUP
Sketch #2 VEIN

DATE Jan 1/65	SCALE 1" = 20'
SURVEYED BY H.L.H	CHECKED BY
DRAWN BY "	FILE NO.
TRACED BY "	DRG. NO.

To accompany report by H.L. HILL & ASSOCIATES LTD



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HILL, [redacted] & ASSOCIATES
CONSULTING ENGINEERS
VANCOUVER, BRITISH COLUMBIA

EAGLE CREEK MINES
CLAIM MAP
Showing ANTIMONY Deposits

DATE Oct 20/64	SCALE 1" = 1,000 ft
PURCHASED BY	CHECKED BY HLH
DRAWN BY L.H	FILE NO.
TRACED BY L H	DWG. NO.