Extra

| FOR GOVERNMENT USE ONLY |
| --- |
| Operator |
| Docket No. OME – |
| Contract No. 14-23-090– |
| Contract Date |

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

That certain land in the County of Box Elder, State of Utah,

described as ~~follows~~ ~~Xxxxxx~~:[2] in a Warranty Deed dated September 10, 1968 and recorded on September 20, 1968 in the office of the Box Elder County Recorder as Entry No. 18442H in Book 7 Mines at Page 45.

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

BANNOCK SILVER MINING COMPANY[3]

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same.[4]

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

None

11/36:36-Y-1

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated_____, and recorded in Book_____, Page____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions None (State "None" or "See Annex No. ____".)

Dated this ____ day of August, 1969.

Thomas F. Miller (Seal) Box 267 (Street) Oakley, Idaho (City & State)

Thomas F. Miller

_____ (Seal) _____ (Street) (City & State)

_____ (Seal) _____ (Street) (City & State)

_____ (Seal) _____ (Street) (City & State)

_____ (Seal) _____ (Street) (City & State)

_____ (Seal) _____ (Street) (City & State)

I, Sharon F. Miller (Name), certify that I am the Secretary (Title—Secretary, etc.) of the corporation named herein; that Thomas F. Miller (Name), who signed this agreement was then President (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

Sharon F. Miller (Corporate Seal)

Sharon F. Miller

MME Form 7
(2/63)

AIRMAIL

UNITED STATES OF AMERICA
CERTIFICATION OF POSSIBLE PRODUCTION
UNDER AN EXPLORATION CONTRACT

Mr. Thomas F. Miller
Rt. 1, Box 154
Cataldo, Idaho 83810

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Pursuant to Article 7 of the referenced contract, as amended, the Government hereby certifies that mineral or metal production may be possible as a result of the exploration work.

Therefore, royalties shall be paid to the Government as provided in the contract on all production from the land described in the contract from June 14, 1966, to June 14, 1976, or until the total amount contributed by the Government under the contract ($46,116.95) is fully repaid with interest at the rate of 6-3/4 percent per annum, whichever occurs first. The payment of royalties is secured by a lien upon the land and upon any production therefrom.

Royalty payments should be made in favor of the U. S. Geological Survey and mailed or delivered to the Field Officer, Office of Minerals Exploration, Region III, Room 203, Building 53, Denver Federal Center, Denver, Colorado 80225. Each payment should be accompanied by two copies of settlement sheets or other suitable sales evidence showing the date of sale, name of the purchaser, the quantity and grade of the production sold, the price per unit, and the gross proceeds and allowable deductions therefrom. The purchaser should be notified of the Government's royalty on production and directed to pay the royalty, computed as provided in the contract, directly to the Government.

The Field Officer should be promptly notified upon the commencement of any production and upon any extended cessation thereof. Production unsold or unused six months after extraction from the ground should be reported promptly to the Field Officer.

Attention is specifically invited to the provisions of Article 2(c) of the contract referring to the preservation of the Government's royalty rights. Two true copies of any instrument transferring, surrendering, or encumbering any of said rights shall be furnished to the Field Officer.

Dated this 28th day of April 1969.

THE UNITED STATES OF AMERICA

Harold Williams (for)

Chief, Office of Minerals Exploration
U. S. Geological Survey

Copy to: Bannock Silver Mining Company
c/o Pugsley, Hayes, Rampton & Watkiss
400 El Paso Gas Building
315 East Second South
Salt Lake City, Utah 84111

Lease + Sub. Agt. dated August 1969

MME Form 9
Rev. Mar. 59

UNITED STATES
DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

OFFICIAL DOCKET FILE

Contract No. 14-23-2220 Docket No. MME-6152

Application
- [ ] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

**Left Side**

- [ ] Royalty Audits
- [x] Certification of Discovery
- [ ] Closing Letter
- [x] Cost Audits Feb 1968
- [x] Termination Notice or Agreement 8/13/68
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [x] Contract with all exhibits and annexes
- [x] Owner's Consent to Lien and Subordination Agreement
- [x] Application and Attachments

~~Additional Folders:~~ pocket - maps

**Right Side**

- [ ] Project Summary (final)
- [ ] Work Completed Analysis (final)
- All other material filed in chronological order including the following reports if checked:
- [ ] Field Team Semiannual Report for Certified Project
- [x] Final Field Team Report (Tab)
- [x] Operator's Final Report (Tab) 10-28-69
- [ ] Interim Field Team Reports
- [x] Operator's monthly reports and all attachments
- [x] On-site Exam. Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

**Left Side**

Folders No. 2 : Reports
- [ ] Analysis of Semiannual Inspection Reports
- [ ] Project Summary (Interim) by MME Engineers

**Right Side**

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Field Team Interim Reports
- [x] 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

57615

MME Form 7
(2/63)

OFFICIAL FILE COPY

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| 4/24/69 | Kirkham | 120 |
| | | 220 |
| | Long | 140 |
| | App'd. Sci. Off. | |
| 4/28 | Kilsgaard | |
| 4/28 | Klepp | ~~130~~ |
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| | | 220 |

AIRMAIL

UNITED STATES OF AMERICA
CERTIFICATION OF POSSIBLE PRODUCTION
UNDER AN EXPLORATION CONTRACT

Mr. Thomas F. Miller
Rt. 1, Box 154
Cataldo, Idaho 83810

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Pursuant to Article 7 of the referenced contract, as amended, the Government hereby certifies that mineral or metal production may be possible as a result of the exploration work.

Therefore, royalties shall be paid to the Government as provided in the contract on all production from the land described in the contract from June 14, 1966, to June 14, 1976, or until the total amount contributed by the Government under the contract ($46,116.95) is fully repaid with interest at the rate of 6-3/4 percent per annum, whichever occurs first. The payment of royalties is secured by a lien upon the land and upon any production therefrom.

Royalty payments should be made in favor of the U. S. Geological Survey and mailed or delivered to the Field Officer, Office of Minerals Exploration, Region III, Room 203, Building 53, Denver Federal Center, Denver, Colorado 80225. Each payment should be accompanied by two copies of settlement sheets or other suitable sales evidence showing the date of sale, name of the purchaser, the quantity and grade of the production sold, the price per unit, and the gross proceeds and allowable deductions therefrom. The purchaser should be notified of the Government's royalty on production and directed to pay the royalty, computed as provided in the contract, directly to the Government.

The Field Officer should be promptly notified upon the commencement of any production and upon any extended cessation thereof. Production unsold or unused six months after extraction from the ground should be reported promptly to the Field Officer.

Attention is specifically invited to the provisions of Article 2(c) of the contract referring to the preservation of the Government's royalty rights. Two true copies of any instrument transferring, surrendering, or encumbering any of said rights shall be furnished to the Field Officer.

Dated this 28th day of April 1969.

THE UNITED STATES OF AMERICA

Harold Kirkemo (GLA)

Chief, Office of Minerals Exploration
U. S. Geological Survey

Copy to: Bannock Silver Mining Company
c/o Pugsley, Hayes, Rampton & Watkiss
400 El Paso Gas Building
315 East Second South
Salt Lake City, Utah 84111

Lease + Sub. Agt. dated August 1969

cc: Director's Reading File
Economic Geology File
Branch of Budget & Finance
Assoc. Sol.--Room 6554
OME docket
OME Region III
OME ReadingFile
Mr. Kirkemo
130 (2)

GLAult/a 4-24-69

Docket copy

UNITED STATES DEPARTMENT OF THE INTERIOR

OFFICE OF SURVEY AND REVIEW
AUDIT OPERATIONS
WASHINGTON, D.C.

Report of Review-Contract 2220
Docket No. OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

February 1968

We have examined the disbursement records in the Branch of Budget and Finance, Administrative Division, Geological Survey, and reviewed the Office of Minerals Exploration (OME) contract files pertaining to the subject minerals exploration project. The examination was performed at Washington, D. C., on February 19 and 20, 1968.

The exploration work contemplated by this contract, as amended, was to consist of 12,065 feet of non-core and diamond-core drilling from surface drill sites for silver-bearing ore bodies. The total allowable cost of the work as set forth in the contract was $78,800 with Government participation on a 75 percent basis, not in excess of $59,100.

Drilling was started on July 28, 1966; was recessed from December 22, 1966, until May 8, 1967; and was continued thereafter until November 22, 1967. During this time, a total of 9,384.4 feet of drilling was accomplished. The reported cost claimed by the Operator and approved by the OME Field Officer, Region III, Denver, Colorado, subject to Government participation under the terms of the contract amount to $61,489.26. The Government's share, on the 75 percent basis, amounts to $46,116.95 of which $45,916.95 has been paid to the Operator.

The unpaid balance of $200 is being withheld from settlement pending resumption of the exploration work or a determination that the

contract should be terminated and a final report submitted to OME by the Operator as provided by the terms of the contract.

No exception is taken to the OME settlement with the Operator to date.

C. E. Fisher

C. E. Fisher, Auditor

Reviewed by:

W. H. Wilkerson, Jr.

W. H. Wilkerson, Jr., Contract and Grant Audit
Audit Operations, Office of Survey and Review

Government's copy

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6452

TERMINATION AGREEMENT

It is agreed this 13th day of August, 1968, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Thomas F. Miller, an individual, hereinafter called the "Operator," parties to that certain Exploration Contract No. 2220 (OME-6452), dated June 14, 1966, as amended, hereinafter called the "Contract," that:

1. Effective November 23, 1967, the Contract and all obligations of the parties thereunder, except as herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute only to the allowable costs as specified in Article 6 of the contract, incurred prior to said effective date.

3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including furnishing to the Government three copies of a final report (in addition to the final monthly report) which shall include a geological and engineering evaluation of the results of the work performed under the Contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps, or sketches, and a summary of the work performed and the related costs thereof.

4. All rights of the Government respecting certification of possible production, the payment of royalties on production and liens on the land to secure the payment thereof, reports (including preservation of the Operator's records), accounts, audits, and the right to recover any overpayments are hereby expressly preserved.

5. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract except as otherwise provided in this termination agreement.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
Chief, Office of Minerals Exploration
U. S. Geological Survey

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Kishemo
Johnson
Peterson

OPERATOR

Thomas F. Miller
Thomas F. Miller

SURNAME COPY

7/23/68 120

7/24 Johnson 110

120M

July 23, 1968

Memorandum

To: The File

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Justification for Termination of Contract

The purpose of this project was to explore by non-core and diamond core drilling for silver-bearing ore bodies in the Vipont and Phelan limestone formations and other favorable formations underlying the barren Wardlaw shale formation. A total of 12,065 feet of drilling was provided for by the contract at a total estimated cost of $78,800.00, with the Government's share at 75 percent totalling $59,100.00.

A total of 9,384.4 feet of drilling was completed in the period July 28, 1966 to November 22, 1967 at a cost of $61,489.26, with the Government's share totalling $46,116.95, of which $200.00 was withheld from payment to the Operator pending resumption of work or submittal of a final report following termination of the contract.

Three areas were explored by drilling, the Vipont, Midway, and the Lexington-Argenta-Cassius areas. The results of the drilling in the Midway and Lexington-Argenta-Cassius areas were not encouraging, as the Field Officer reported in a memorandum dated March 8, 1968, to the Chief, OME. The areas were adequately explored without using all of the footage allowed. Two holes in the Vipont area intersected mineralized structures which seem to be typical of the narrow, elongate stoped areas in the nearby Vipont mine.

An Amendment No. 3 was prepared which would have allowed the Operator to drill three holes between the previously drilled holes in the Vipont area. The Operator had agreed to this plan, which was a revision of his earlier proposal to explore possible extensions of these structures more distant from the mine. However, the amendment was returned unsigned by the Operator following a thorough review of the proposal. Unless the Government accepted his earlier proposal, he concluded that the drilling was finished and that preparation of a final report was in order.

The Field Officer agreed with the plan outlined in the proposed amendment and after the amendment was returned unsigned, he concluded that the contract should be terminated.

In summary, the original target areas for this project were explored adequately and a secondary target was discovered. The Operator rejected the Government's modified plan to conduct additional drilling to better define a new target. As the new target is a minor one compared to the targets which were the original goals, it is not of advantage to the Government to insist that the Operator continue work on the project. It is recommended that the contract be terminated.

Harold Kirkemo

Harold Kirkemo

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
Mr. Kirkemo

HKirkemo/gla 7-23-68

Government's Copy

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6452

AMENDMENT NO. 2

It is agreed this 5th day of June, 1967, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Thomas F. Miller, hereinafter called the "Operator," that Exploration Contract 2220 (OME-6452), dated June 14, 1966, as amended, is further amended effective May 1, 1967, as follows:

In Exhibit A:

1. Under the heading Description of the Work the first paragraph is revised to read as follows:

The work shall consist of bulldozing access roads to about 20 drill sites, leveling the sites, and drilling about 20 holes totalling not more than 12,065 feet.

2. Under the heading Estimated Costs of the Project, Actual Costs, Category (1) Independent Contracts, the third item and the total for the category are revised to read as follows:

| | | |
|---|---|---|
| Non-core and diamond core drilling 12,065 feet | $64,790.00 | |
| Non-core drilling @ $4.70/ft. 1/ | | |
| BX wire line core drilling @ $6.90/ft. 1/ | | |
| AX or AXM core drilling @ $6.80/ft. 1/ | | |
| Total | | $65,390.00 |

1/ Original footnote unchanged.

Category (2) Personal Services is revised to read as follows:

None except:

| | | |
|---|---|---|
| 1 Supervisor-geologist-engineer 13¼ months @ $750.00/month | 9,950.00 | |
| 1 Outside geological consultant 8 days @ $75.00/day | 600.00 | |
| Total | | $10,550.00 |

This amendment shall not be construed to increase the estimated total cost of the contract, or the aggregate amount which the Government may be required to contribute.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
Chief, Office of Minerals Exploration
U. S. Geological Survey

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Johnson
Külsgaard

THOMAS F. MILLER

Thomas F. Miller

MME Form 7
(2/63)

OFFICIAL FILE COPY

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May 18, 1967

Memorandum

To: The File

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Justification for Amendment No. 2

The contract provided for the services of a supervisor-geologist-engineer for eight months at $750.00 per month. This estimate was based on the drilling contractor's estimate of time required to complete the drilling on a one-shift-per-day basis. Drilling proceeded more slowly than expected even on a two-shift-per-day basis during the 3½ months of operation prior to the recess authorized under Amendment No. 1. The Operator reports that the drilling contractor has had trouble retaining driller's helpers, and has had more than normal down-time because of equipment breakdown. Despite these troubles, the percentage of core recovered from the target formation is good to excellent.

On the basis of the drilling experience on the first six holes completed, the Operator expects that the drilling will require a total of 13¼ months, or 5¼ months more than originally estimated and allowed in the contract. The Operator requests funds to cover the additional time for supervision, and suggests that certain funds allowed for drilling under Category 1 of the contract be transferred to Category 2, Personal Services. Surplus funds remaining from drilling the first six holes plus unused funds expected from the balance of the project will be more than sufficient to cover the additional cost for supervision.

Inasmuch as the supervising engineer or geologist shall closely and frequently inspect rock cuttings obtained from the non-core drilling on this project, continuous supervision during the drilling is essential. For this reason, I concur with the Field Officer's recommendation to approve the Operator's request for funds for an additional 5¼ months' supervision.

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File

Harold Kirkemo

Harold Kirkemo

cc: HKirkemo
HKirkemo/gla 5-18-67

23263

Governmnet's Copy

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6452

AMENDMENT NO. 1

It is agreed this 16th day of January, 1967, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Thomas F. Miller, hereinafter called the "Operator," that Exploration Contract 2220 (OME-6452), dated June 14, 1966, is amended effective December 22, 1966, as follows:

1. (a) Drilling under the contract may be suspended during the period beginning December 22, 1966, and ending not later than June 22, 1967.

(b) The Government shall not contribute to any costs of rehabilitation or repair which in its opinion would not have occurred had there been no suspension of the work.

(c) The Operator, at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work.

2. The time fixed by Article 1 of the contract for completion of the work is extended from eighteen (18) to twenty-four (24) months from the date of the contract or until June 14, 1968.

This amendment shall not be construed to increase the estimated total cost of the contract, the aggregate amount which the Government may be required to contribute, the amount of any category designated as a maximum, nor the fixed unit cost of any item of work.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank C. Johnson
Chief, Office of Minerals Exploration
U. S. Geological Survey

THOMAS F. MILLER

Thomas F. Miller

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MME Form 7
(2/63)

| Date | Surname | Code |
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| | | 20M |

FINAL FILE COPY

January 6, 1967

Memorandum

To: The File

From: Harold Kirkemo, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

JUSTIFICATION FOR AMENDMENT NO. 1

This project is in an isolated area which is difficult of access in winter and spring months, and where snow accumulation, freezing and thawing conditions make surface drilling operations difficult and costly.

I concur with the Field Officer's recommendation to approve the Operator's request for the recess during adverse weather conditions.

Harold Kirkemo

Harold Kirkemo

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Mr. Kirkemo

HKirkemo/gla 1-6-67

23263

Government's Copy

MME Form 50
July 1965

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

EXPLORATION CONTRACT
(Long Form)

| Docket No. | Commodity | Contract No. | County | State |
|---|---|---|---|---|
| OME-6452 | Silver | 2220 | Box Elder | Utah |

It is agreed JUN 14 1966 (Date), between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and

Thomas F. Miller, an individual

whose mailing address is 2112 Westminster Avenue, Salt Lake City, Utah 84108, hereinafter called the "Operator," as follows:

ARTICLE 1. Authority and scope.--(a) This contract entered into under the authority of Public Law 701, 85th Cong., 2d sess. (72 Stat. 700; 30 U.S.C. § 641 - 646), consists of this form, the attached Annex I (land description), Exhibit A (work and costs), and the maps and documents listed. The work is a search for new or unexplored deposits of the commodity designated above. The Operator shall begin the work on or before June 22, 1966 (Date) and, subject to the provisions of Article 9 and Exhibit A, shall either have completed the work within 18 months from the date of the contract or shall have incurred allowable costs (see Article 6) in a sum not less than the total cost set forth in Exhibit A.

(b) The total allowable cost of the work set forth in Exhibit A is $ 78,800.00. The Government will contribute ~~50~~ 75 percent of the allowable costs as they are incurred, in a total sum not in excess of $ 59,100.00 in accordance with the provisions of Articles 3, 4, 5, and 6. "Costs incurred" means costs that have been paid or have become due and payable, or that the Government determines have become obligations.

(c) Interest computation.--Simple interest at the rate of 6 ¾ percent shall accrue from the dates Federal funds are made available until the period specified for payment of royalty expires, or until the amount of Federal funds contributed is fully repaid with interest.

(d) The Operator shall not transfer or assign this contract or any right or obligation thereunder without the written consent of the Government.

ARTICLE 2. Operator's right in land.--(a) The Operator represents and undertakes that Annex I correctly describes the land which is the subject of this contract and the nature of the Operator's right of property and possession therein (whether as owner, lessee, or otherwise), and that such right, title, or interest is subject only to the following claims, liens, or encumbrances:

See Annex I

(b) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above and (if the Operator does not hold the legal title) the lien agreement of any holder of the legal title of the land (lessor, seller, optionor, etc.) are attached as follows:

See Annex I

(c) Final report.--Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with three copies of a final report (in addition to the final monthly report). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the related costs.

(d) Report of sales.--The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's royalty relates, such as two copies of smelter or concentrator settlement sheets and certified accounts of production and sale or other disposition of production.

(e) Compliance with requirements.--If the Government determines that any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the preparation or completion of the same with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 6. Costs.--(a) Allowable costs.--The allowable costs of the work to which the Government will contribute are limited to:

(1) the necessary, reasonable, and direct actual costs that are estimated in Exhibit A by categories as specified in this article; and

(2) fixed costs for units of work to be performed (per foot, per hour, etc.) agreed upon in lieu of actual costs and set forth in Exhibit A.

The Government will not contribute to costs under any category or subcategory omitted from the estimate of costs in Exhibit A. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost; any excess over a fixed unit cost; and any excess over the total allowable cost of the work are not allowable. The Operator shall incur such excesses for his own account without contribution by the Government, but the Operator is not obligated to incur more than his agreed percentage of the total allowable cost of the work.

Any category or subcategory or element thereof not designated as a maximum in this article, or in Exhibit A may be exceeded, provided that the total allowable cost of the work, which is a maximum, is not exceeded.

CATEGORY (1)--INDEPENDENT CONTRACTS.--(See Article 3(b)). The total of this category and the average unit cost estimated for each type of work to be performed under an independent contract are maximums.

CATEGORY (2)--PERSONAL SERVICES.

Subcategory (a)--Supervision and Technical Services--All elements of this subcategory (number of supervisors, technicians, outside consultants, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)--Labor.

CATEGORY (3)--OPERATING MATERIALS AND SUPPLIES.--Includes such items as drill bits and steel, explosives, fuel, pipe, power, timber, rail, and small tools costing less than $50 each.

CATEGORY (4)--OPERATING EQUIPMENT.

Subcategory (a)--Rental.--The number of each rented item /6 mine cars, 1 truck/, the rate of rental /$100 per month, $5 per hour/, and the total of this subcategory are maximums.

Subcategory (b)--Purchases.--The total of this subcategory is a maximum.

Subcategory (c)--Depreciation.--All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)--INITIAL REHABILITATION AND REPAIRS.--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

Subcategory (a)--Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).--The total of this subcategory is a maximum.

Subcategory (b)--Initial rehabilitation and repairs of operating equipment.--The total of this subcategory is a maximum.

CATEGORY (6)--NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

CATEGORY (7)--MISCELLANEOUS.--Includes requirements and costs that do not fall within any of the first six categories, such as repairs other than initial and maintenance of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, and communications.

(b) Nonallowable costs.--In addition to the limitations imposed by paragraph (a) of this Article 6 the Government will not contribute to the following costs:

(1) Costs of the land, such as rental, depreciation, depletion, or other costs of acquiring, owning, or holding possession;

(2) Indirect costs, such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) Previous work performed or costs incurred before the date of this contract; and

(4) Deferred payments.--Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods, unless the purchase agreement is approved by the Government in writing.

(c) Reductions in costs.--The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original total cost. The provision does not apply to receipts from production which are subject to the Government's royalty under the provisions of Article 7.

ARTICLE 7. Repayment by Operator.--(a) Certification.--If the Government considers that mineral or metal production from the land covered by the contract may be possible as a result of the exploration work, it shall so certify in writing to the Operator at any time not later than six months after a sufficient final report and final accounting (see Article 5) have been furnished.

(b) Royalty on production.--The Operator, whether or not the producer (for example, if the Operator either transfers or does not retains his interest in the land), shall pay to the Government a royalty on all minerals and metals mined or produced from the land as follows:

(1) irrespective of any certification of possible production--from the date of the contract until the lapse of the time within which the government may issue such certification or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first; or

(2) if the Government issues a certification of possible production--for a period of ten years from the date of the contract, or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first.

(c) Payment of royalty.--(1) The Government's royalty shall be five percent of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrate, metal or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business and shown as deductions on the buyer's settlement sheets (such as treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight payable by the buyer to a carrier (not the Operator or producer)), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. No costs of the Operator or Producer are deductible in arriving at the "gross proceeds" as that term is here used.

The term "treatment processes" means those processes (such as milling, concentrating, smelting, refining, or equivalent, but excluding fabricating or manufacturing) applied to the crude ore or other production after it is extracted from the ground to put it into a commercially marketable form.

(2) The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be.

(d) Unsold production.--If any production (ore, concentrate, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrate, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination or the market value, whichever is greater.

(e) Lien for payment.--To secure the payment of royalty (see Article 7(b)), the Operator hereby grants to the Government a lien upon his interest in the land and upon any production of minerals and metals therefrom until the royalty claim is extinguished by lapse of time or is fully paid.

(f) Notice to purchasers.--The Operator or producer shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Government, and this estimate shall be final and binding upon the Operator or producer.

(g) No obligation to produce.--Nothing in this contract shall be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(h) Government not obligated to buy.--Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals and metals mined or produced from the land.

ARTICLE 8. Interests in purchased property.--(a) Title and ownership.--All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions although title thereto shall be taken in the name of the Operator.

(b) Preservation of property.--Until the final disposal of any property in which the Government has an interest, the Operator shall preserve and protect same for the best interest of the Government, and any reasonable and necessary cost thereof will be treated as an allowable cost of the exploration. After the completion of the work, termination of the Government's obligation to contribute, or when such property is not being used for the work, the Operator shall not use it elsewhere without the written consent of the Government and without paying a reasonable rental to be fixed by the Government for its proportionate interest.

(c) Disposal of property.--Upon the completion of the work, termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, sale to others, purchase by the Operator, or sale or transfer to the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government, the Operator shall not sell at any price any item of property that cost more than $500, and shall not sell at less than 25 percent of the purchase price any item of property that cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or offers. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, explosives, pipe, or rail), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item, the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the exploration.

(d) Default of the Operator re disposal.--If within 90 days after the completion of the work, termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may:

(1) in writing extend the time within which the Operator must dispose of or liquidate the property;

(2) by written notice to the Operator, place upon such property what it determines to be a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; and

(3) enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 9. Termination of the Government's obligations.--(a) If the Government determines that operations at any time have failed to achieve anticipated results and further work is not justified, the Government may give the Operator written notice thereof, and thereupon:

(1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to final accounting and reporting; and

(2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to final accounting and reporting.

(b) If the Government determines that the Operator is in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon:

(1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to final accounting and reporting; and

(2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to final accounting and reporting.

The Government may also avail itself of any other remedy the law may provide for breach of contract, including the right to rescind the contract and to demand repayment of all moneys contributed by the Government under the contract.

(c) The giving of any notice by the Government under the provisions of this Article 9 shall not affect the Government's rights as provided for in the contract with respect to royalty and liens to secure the payment thereof, and such rights shall be fully preserved.

(d) The determinations of the Government are subject to appeal under Article 13.

ARTICLE 10. Notices to be given by the Government may be delivered to the Operator, or may be sent by certified mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 11. Officials not to benefit.--No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 12. Nondiscrimination in Employment. The provisions respecting nondiscrimination in employment which are required by section 301 of Executive Order 10925, dated March 6, 1961 as amended and supplemented are attached hereto as Exhibit B and are hereby incorporated in and made a part of this contract.

ARTICLE 13. Disputes.--Any dispute arising under this contract which is not disposed of by agreement shall be decided by the Director, U. S. Geological Survey, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Operator. The decision of the Director, U. S. Geological Survey, shall be final and conclusive unless, within 30 days from the date of receipt of such copy, the Operator mails or otherwise furnishes to the Director, U. S. Geological Survey, a written appeal addressed to the Secretary of the Interior. The decision of the Secretary or his duly authorized representative for the determination of such appeals shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence.

The term "Director, U. S. Geological Survey," as used herein includes his duly authorized representative.

ARTICLE 14. Work Hours Act of 1962 - Overtime Compensation.--This contract, to the extent that it is of a character specified in the Work Hours Act of 1962 (Public Law 87-581, 76 Stat. 357-360) and is not covered by the Walsh-Healey Public Contracts Act (41 U.S.C. 35-45), is subject to the following provisions and to all other provisions and exceptions of said Work Hours Act of 1962.

(a) Overtime requirements.--No Operator or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic to be employed on such work in excess of eight hours in any calendar day or in excess of forty hours in any workweek unless such laborer or mechanic receives compensation at a rate of not less than one and one-half times his basic rate of pay for all hours worked in excess of eight hours in any such calendar day or in excess of forty hours in any such workweek, as the case may be.

(b) Violations; liability for unpaid wages; liquidated damages.--In the event of any violation of the clause set forth in subparagraph (a) of this paragraph, the Operator and any subcontractor responsible therefor shall be liable to any affected employee for his unpaid wages. In addition, such Operator and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for

liquidated damages. Such liquidated damages shall be computed, with respect to each individual laborer or mechanic employed in violation of the clause set forth in subparagraph (a) of this paragraph, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of eight hours or in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (a) of this paragraph.

(c) Withholding for unpaid wages and liquidated damages.--The U. S. Geological Survey may withhold or cause to be withheld, from any moneys payable on account of work performed by the Operator or subcontractor, such sums as may administratively be determined to be necessary to satisfy any liabilities of such Operator or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (b) of this paragraph.

ARTICLE 15. Copeland (Anti-Kickback) Act--Nonrebate of wages.--The regulations of the Secretary of Labor applicable to contractors and subcontractors (29 CFR, Part 3), made pursuant to the Copeland Act, as amended (40 U. S. C. 276c) and to aid in the enforcement of the Anti-Kickback Act (18 U. S. C. 874) are made a part of this contract by reference. The Operator will comply with these regulations and any amendments or modifications thereof and will be responsible for the submission of affidavits required of independent contractors thereunder. The foregoing shall apply except as the Secretary of Labor may specifically provide for reasonable limitations, variations, tolerances, and exemptions.

ARTICLE 16. Changes and added provision.--

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

THOMAS F. MILLER
(Operator)

By Thomas F. Miller

By Arthur A. Baker
Acting Director, U. S. Geological Survey

Title

Long
App'd. Sol. Off.
Stikemo
Johnson
Kilsgaard
Klepper

I, _____, certify that I am the
(Name)

_____ secretary of the corporation named as Operator herein; that

_____, who signed this contract on behalf of the Operator, was then
(Name)

_____ of said corporation; that said contract was duly signed for
(Title)

and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

[ CORPORATE SEAL ]

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6452

ANNEX I

The land, including all rights pertaining thereto, referred to in Article 2 of the contract consists of fifty-three (53) patented lode mining claims in section 31, T. 15,N., R. 17 W.; sections 6 and 7, T. 14 N., R. 17 W.; section 36, T. 15 N., R. 18 W., and sections 1 and 12, T. 14 N., R. 18 W., Salt Lake Meridian, Ashbrook mining district, Box Elder County, Utah.

These claims are shown on Figure 1, entitled "Claim Map, Vipont Property, Ashbrook Mining District, Box Elder County, Utah" which is attached and made part hereof.

The claims included in the group are as follows:

| Claims | Patent No. |
|---|---|
| Catherine Nos. 1-6 | 42134 |
| Contact Mine Nos. 1-3 | " |
| Dugway Nos. 1-6, 8-20 | " |
| Fraction | " |
| Northern Nos. 1-5 | " |
| Park Nos. 1-4 | " |
| Poorman | " |
| Sentinel Mine No. 2 | " |
| Southern Nos. 1-3 | " |
| West End | " |

| Claim | Patent No. |
| --- | --- |
| Argenta | 24640 |
| Black | 24639 |
| Champion | 24642 |
| Clipper | 24577 |
| Homestake | 24576 |
| Homestake Mill Site | " |
| Lexington | 24643 |
| Mahogany | 24641 |
| Sentinel | 24578 |

The Operator is in possession of the claims by virtue of a Mine Lease dated January 2, 1965, between Thomas Frederick Miller and Melvin Ray Murray, lessees and Vipont Silver Mining Company, lessor and owner of the claims and pursuant to an Assignment and Release agreement dated April 8, 1965, between Thomas F. Miller and Melvin Ray Murray which established Thomas F. Miller as the sole lessee.

A Lien and Subordination Agreements executed by the owner of the claims is attached hereto and made part hereof.

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

| FOR GOVERNMENT USE ONLY |
|---|
| Operator |
| Docket No. OME – |
| Contract No. 14-23-090– |
| Contract Date |

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

That certain land in the County of Box Elder, State of Utah, described ~~as follows~~:[2] in a Warranty Deed dated September 10, 1968 and recorded on September 20, 1968 in the office of the Box Elder County Recorder as Entry No. 18442H in Book 7 Mines at Page 45.

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

BANNOCK SILVER MINING COMPANY[3]

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same.[4]

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

None

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated _____, and recorded in Book_____, Page____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions None (State "None" or "See Annex No.____".)

Dated this ____ day of August, 19 69.

Thomas F. Miller (Seal) Box 267 (Street) Oakley, Idaho (City & State)

Thomas F. Miller

_____ (Seal) _____ (Street) _____ (City & State)

_____ (Seal) _____ (Street) _____ (City & State)

_____ (Seal) _____ (Street) _____ (City & State)

_____ (Seal) _____ (Street) _____ (City & State)

_____ (Seal) _____ (Street) _____ (City & State)

I, Sharon F. Miller (Name), certify that I am the Secretary (Title—Secretary, etc.) of the corporation named herein; that Thomas F. Miller (Name), who signed this agreement was then President (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

Sharon F. Miller (Corporate Seal)

INT.-DUP. SEC., WASH., D.C. 21103

MINING RECORD
Book 7 Page 45

RECORDER'S NO. 18442H RECORDED SEP 20 1968

FEE $ 29.00 TIME 12:45 ~~AM~~ PM BOOK 7 Mines PAGE 45
MARGARET R. EVANS - BOX ELDER COUNTY RECORDER Margaret R. Evans

# WARRANTY DEED

VIPONT SILVER MINING COMPANY, a corporation organized and existing under the laws of the State of Utah, with its principal office at Salt Lake City, of County of Salt Lake, State of Utah, grantor, hereby CONVEYS AND WARRANTS to BANNOCK SILVER MINING COMPANY, grantee, of Salt Lake City, Utah, for the sum of TEN DOLLARS ($10.00) and other good and valuable consideration the following described tracts of land in Box Elder County, State of Utah:

That certain mine and mining property called the Vipont Mine, being all of the possessions of Vipont Silver Mining Company in Ashbrook Mining District, Box Elder County, Utah, and comprising the following patented lode mining claims and mill-sites: Homestake Lode Mining and Millsite claims, U.S. Lot Nos. 37A and 37B, Clipper Lode Mining Claim, U.S. Lot No. 38, Sentinel Lode Mining Claim, U.S. Lot No. 39, Black Lode Mining Claim U.S. Lot No. 40, Argenta Lode Mining Claim U.S. Lot No. 41A, Mahogany Lode Mining Claim U.S. Lot No. 42A, the Champion Lode Mining Claim U.S. Lot No. 43 A, Lexington Lode Mining Claim U.S. Lot No. 44A.

Those certain mining claims or premises known as the Dugway No. 1, Dugway No. 2, Dugway No. 3, Dugway No. 4, Dugway No. 5, Dugway No. 6, Dugway No. 8, Dugway No. 9, Dugway No. 10, Dugway No. 11, Dugway No. 12, Dugway No. 13, Dugway No. 14, Dugway No. 15, Dugway No. 16, Dugway No. 17, Dugway No. 18, Dugway No. 19, Dugway No. 20, Southern No. 1, Southern No. 2, Southern No. 3, Northern No. 1, Northern No. 2, Northern No. 3, Northern No. 4, Northern No. 5, Catherine No. 1, Catherine No. 2, Catherine No. 3, Catherine No. 4, Catherine No. 5, Catherine No. 6, Contact Mine No. 1, Contact Mine No. 2, Contact Mine No. 3, West End, Sentinel Mine No. 2, Poorman, Fraction, Park No. 1, Park No. 2, Park No. 3 and Park No. 4, being designated by the Surveyor General as lot No. 5078.

Together with all buildings and equipment, all waters and water rights and all metals, ores, gold and silver bearing quartz, rock and earth therein and all dips and spurs, rights, privileges and franchises, tenements, hereditaments and appurtenances thereto incident or belonging or therewith used and enjoyed.

Received with letter, dated 4/3/69
from Pugsley, Hayes, Rampton & Watkiss
(right-hand side)

This conveyance is subject to the following:

1. The rights of Carson Brothers, Grouse Creek, Utah under that grazing lease entered into between the grantor and this lessee in 1964, which lease expires December 31, 1969.

2. The rights of Thomas Frederick Miller and Melvin Ray Murray under that mine lease entered into between the grantor and these lessees in 1964, which lease expires August 31, 1979.

3. Any liens or other encumbrances placed upon the property by Thomas Miller or anyone associated with him.

The officers who sign this deed hereby certify that this deed and the transfer represented thereby was duly authorized under a resolution duly adopted by the board of directors of the grantor at a lawful meeting duly held and attended by a quorum.

In witness whereof, the grantor has caused its corporate name and seal to be hereunto affixed by its duly authorized officers this 10th day of September, A.D. 1968.

Attest:

VIPONT SILVER MINING Company

H E McDonald
Treasurer ~~Secretary~~

By P A Saunderson
President

ATTACHED TO AND FORMING PART OF THIS DOCUMENT

PROVINCE OF ONTARIO )
) ss.
County of York )

On the 10th day of September, A.D. 1968, personally appeared before me Patrick A. Saunderson and Helen E. McDonald who being by me duly sworn did say, each for himself, that he, the said Patrick A. Saunderson is the president, and she, the said Helen E. McDonald is the treasurer of Vipont Silver Mining Company, and that the within and foregoing instrument was signed in behalf of said corporation by authority of a resolution of its board of directors and said Patrick A. Saunderson and Helen E. McDonald each duly acknowledged to me that said corporation executed the same and that the seal affixed is the seal of said corporation.

CHARLES EDWARD HALDEN NOTARY PUBLIC ONTARIO

Notary Public in and for the Province of Ontario
Residing at Toronto, Ontario

Abst A of Mines pgs 146, 147, 148, 206, 207
B of Mines pg 158, 159, 160, 161, 162, 163 164, 165
C of Mines pg. 223, D Mines pg 64, 65, 66
J of Mines pg 5, 6, 7
I of Sec. pg 251, One of Sec. pg 458

Index

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

| FOR GOVERNMENT USE ONLY | |
|---|---|
| Operator | |
| Docket No. OME – | |
| Contract No. 14-23-090 – | 2220 |
| Contract Date | JUN 14 1966 |

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

That certain land in the County of Box Elder, State of Utah,

described as follows:[2] 57 patented lode mining claims (Mineral Survey 5078 37A, 37B, 38, 39, 40, 41A, 42A, 43A, 44A) covering portions of the following: Sec. 6, T 14 N,R 17 W; Sec 1, T 14 N,R 18 W; Sec 31, T 15 N,R 17 W; Sec 36, T 15 N,R 18 W; Sec 7, T 14 N,R 17 W; Sec 12, T 14 N,R 18 W, SLM.

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

Thomas F. Miller [3]

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same.[4]

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

A lease granted by Vipont Silver Mining Company to Carson Brothers of Grouse Creek dated December 22, 1964, for surface grazing rights; a mining lease granted by said company to Thomas F. Miller & Melvin R. Murray dated January 2, 1965, for mining rights

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated _____, and recorded in Book_____, Page____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions None (State "None" or "See Annex No. ____".)

Dated this 25th day of February, 1965.

(Street)
(City & State)
(Seal) VIPONT SILVER MINING COMPANY

(Street)
(City & State)
(Seal) President

Secretary

(Street)
(City & State)
(Seal)

(Street)
(City & State)
(Seal)

(Street)
(City & State)
(Seal)

(Street)
(City & State)
(Seal)

I, P. A. Saunderson (Name), certify that I am the President (Title—Secretary, etc.) of the corporation named herein; that the undersigned P.A. Saunderson and C.R.B. Salter (Name), who signed this agreement President and Secretary respectively (Title—Pres., Vice-Pres., etc.) ~~was~~ were then of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

(Corporate Seal)

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6452

## EXHIBIT A

The purpose of this project is to explore by core and non-core drilling from surface drill sites for silver-bearing ore bodies in the Vipont limestone formation (Mississippian? age), the Phelan limestone formation (Pennsylvanian-Permian age), and other favorable formations that may be present below the unfavorable Wardlaw shale formation.

### General Provisions

A bulldozer of sufficient size but not less than a Caterpillar D-4 or equivalent size of any other make shall be used to prepare necessary access roads and drill sites.

All holes shall be drilled from the surface, cased through the overburden, and completed with not less than AX core size (nominal diameter 1-1/8") or equivalent wire-line size drill equipment.

Facilities shall be provided for recovering diamond drill sludge, and such sludge shall be retained when drilling in significantly mineralized ground.

The diamond drill core shall be stored in boxes identified as to hole number with markers in the core sections indicating the depths represented.

Significantly mineralized core in lengths not to exceed 5 feet each shall be split and one split assayed for gold and silver.

Wherever the core recovery is less than 60 percent, a split of the corresponding retained sludge and a split of such core as may have been recovered shall be assayed separately and the assay results combined according to standard practice to represent a single sample. The remaining core shall be stored in proper sequence with the unsampled core, and the remaining sludge shall be stored in suitable containers properly identified as to source and location. The stored core and sludge samples shall be made available for Government inspection and possible use. With prior Government approval, the Operator may dispose of the stored core and samples.

All drill holes shall be logged, and copies of the logs of completed holes together with plans and sections showing geology and assays shall be furnished monthly to the Government. Such logs shall be accompanied by true copies of assay certificates for all samples.

The Operator shall provide such supervision, labor, and technical services as may be required to complete the work in a satisfactory manner.

The location, direction, and extent of each work item shall be subject to prior Government approval.

The Government will not participate in the costs of incomplete drill holes.

## Description of the Work

The work shall consist of bulldozing access roads to 20 drill sites, leveling the sites, and drilling 20 holes totalling not more than 12,800 feet.

The drill sites shall be located in three areas, Vipont area, Midway area, and the Lexington-Argenta-Cassius area as shown on Figure 2, entitled "Map Showing Proposed Drill Holes, Vipont Property, Ashbrook Mining District, Box Elder County, Utah" which is attached and made a part hereof.

All holes are to be drilled vertically unless results of drilling dictate changes in subsequent holes.

The holes are to be drilled with non-coring drill equipment to penetrate the overburden and most of the shale formations, overlying the limestone formations, and with diamond drill coring equipment to penetrate the limestone formations. The tentative footages of non-core and core drilling and total depth for each hole in the three areas are as follows:

| Areas and Hole No. | Feet of Non-core Drilling | Feet of Core Drilling | Total Length Feet | | |
|---|---|---|---|---|---|
| Vipont Area | | | | | |
| V-1 | 540 | 100 | 640 | 674.0 | 460/214 |
| V-2 | 560 | 100 | 660 | 572.0 | 500/72 |
| V-3 | 560 | 120 | 680 | 589.1 | 506/82.1 |
| V-4 | 600 | 110 | 710 | 605.0 | 500/105.7 |
| V-5 | 640 | 105 | 745 | 639.7 | 537/102 |
| V-6 | 675 | 95 | 770 | 710.0 | 540/170 |
| | | | 4205 | 3732 | |

3043 non core
240.8 core

| | | | |
|---|---|---|---|
| Midway area | | | |
| N-1 | 380 | 195 | 575 |
| N-2 | 400 | 180 | 580 |
| N-3 | 400 | 180 | 580 |
| Lexington-Argenta, Cassius Area | | | |
| G-1 | 420 | 255 | 675 |
| G-2 | 430 | 250 | 680 |
| H-1 | 480 | 225 | 705 |
| H-2 | 470 | 200 | 670 |
| I-1 | 550 | 245 | 795 |
| J-1 | 600 | 235 | 835 |
| K-1 | 560 | 235 | 795 |
| L-1 | 250 | 300 | 550 |
| M-1 | 120 | 265 | 385 |
| M-2 | 120 | 255 | 375 |
| M-3 | 145 | 250 | 395 |
| Total - three areas | 8,900 | 3,900 | 12,800 |

These estimates are subject to change as information is accumulated during the progress of drilling. The depth of non-core drilling and total depth of each hole may be changed in order to avoid non-core drilling in favorable limestone formations.

The supervising engineer or geologist shall closely and frequently inspect rock cuttings obtained from the non-core drilling. Non-core drilling shall be discontinued and diamond core drilling begun when

the cuttings indicate that the shale-limestone contact has been penetrated at shallower depths than estimated above.

The location of drill holes may be changed with the prior approval of the Government.

## Estimated Costs of the Project

### Actual Costs

Category (1) Independent Contracts

| | | |
|---|---|---|
| Mobilization and demobilization | | |
| one bulldozer | $ 100.00 | |
| Bulldozing access roads and | | |
| preparing drill sites | 500.00 | |
| D-4 50 hours @ $10.00/hour | | |
| D-6 40 hours @ $12.50/hour | | |
| D-7 33 hours @ $15.00/hour | | |
| Non-core and diamond core drilling, | | |
| 12,800 feet | 68,740.00 | |
| Non-core drilling @ $4.70/foot 1/ | | |
| BX wire line core drilling @ $6.90/foot 1/ | | |
| AX or AXM core drilling @ $6.80/foot 1/ | | $69,340.00 |

Category (2) Personal Services

None except:

| | | |
|---|---|---|
| 1 Supervisor-geologist-engineer | | |
| 8 months @ $750.00/month | 6,000.00 | |
| 1 Outside geological consultant | | |
| 8 days @ $75.00/day | 600.00 | 6,600.00 |

Category (3) Operating Materials and Supplies

None except:

| | | |
|---|---|---|
| 400 cardboard core boxes @ $1.00/each | $ 400.00 | |
| 300 sample bags @ $0.10/each | 30.00 | $ 430.00 |

Category (7) Miscellaneous

None except:

| | | |
|---|---|---|
| Assaying of 300 core and sludge samples for gold and silver @ $3.00/sample | $ 900.00 | |
| Consultant's travel expenses Salt Lake City, Utah, to Vipont property and return, 1,500 miles @ $0.10/mile | 150.00 | |
| Per diem, 8 days @ $16.00/day | 128.00 | |
| Payroll taxes, F.I.C.A., insurance,etc. | 1,000.00 | |
| Accounting and office expenses 8 months @ $31.25/month | 250.00 | $2,428.00 |
| Total Estimated Actual Costs (rounded) | | $78,800.00 |
| Government Participation @ 75% | | $59,100.00 |

1/ Includes all costs whatsoever such as mobilization and demobilization, moves between holes, cementing and redrilling, drill mud, additives, hole plugging agents, reaming and casing, supply and transportation of water for drilling, delays for the convenience of the Operator, etc.

EXHIBIT B

NONDISCRIMINATION IN EMPLOYMENT

(Section 202, Executive Order 11246, September 24, 1965)

"During the performance of this contract, the contractor agrees as follows:

'(1) The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

'(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

'(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

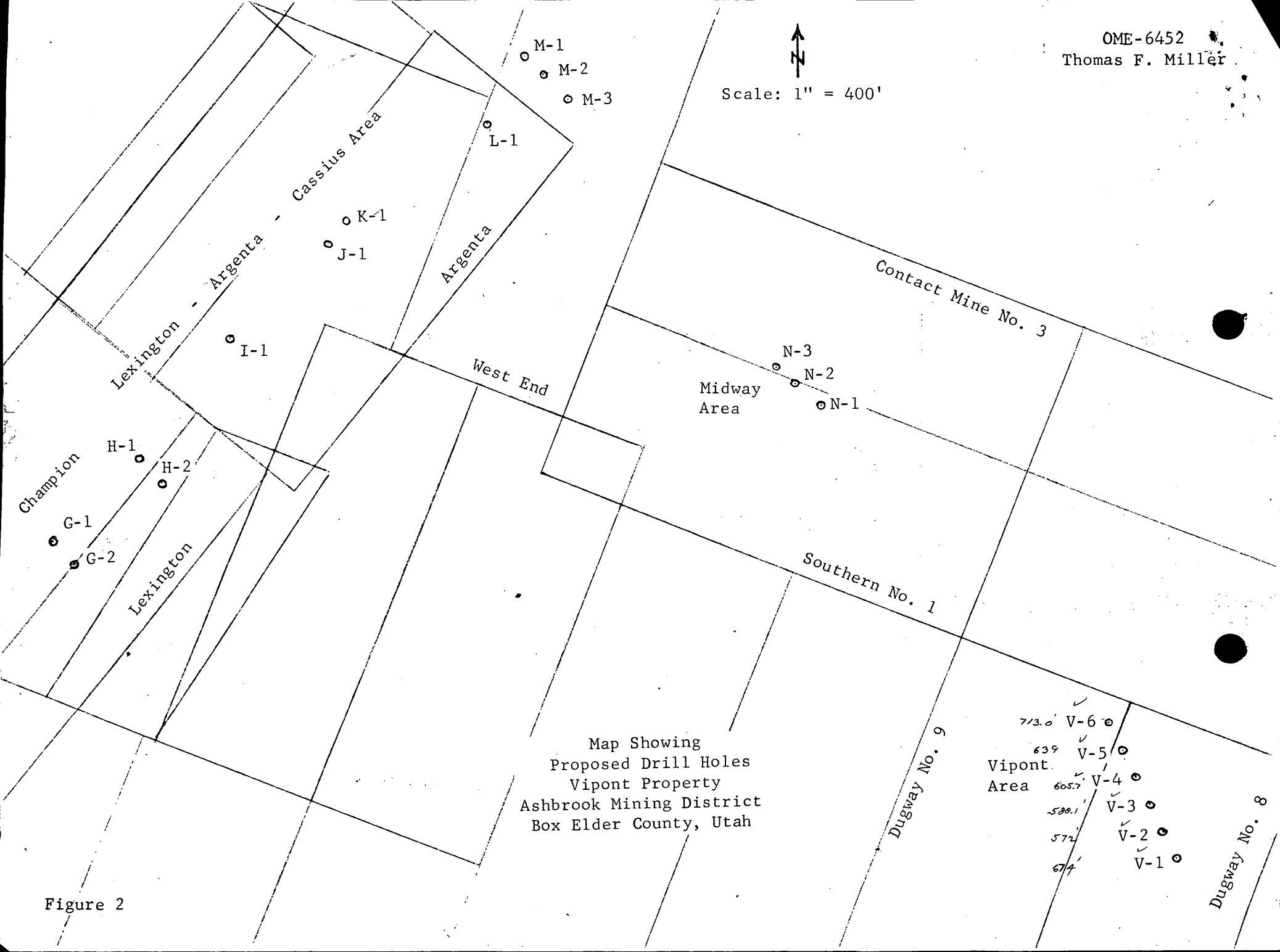
'(4) The contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

'(5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

'(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

'(7) The contractor will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, That in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.'"

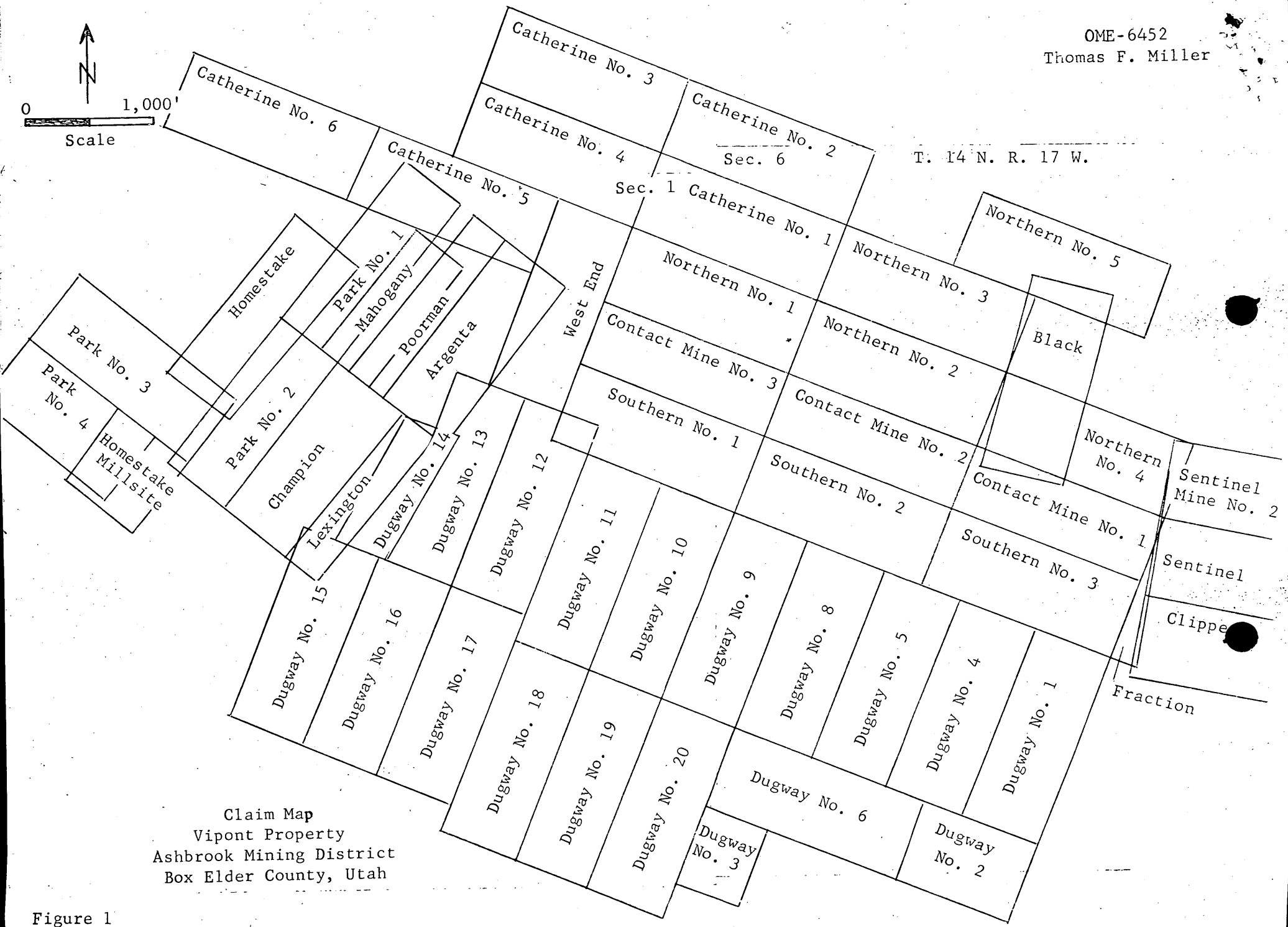
OME-6452
Thomas F. Miller




Map Showing
Proposed Drill Holes
Vipont Property
Ashbrook Mining District
Box Elder County, Utah

Figure 2

OME-6452
Thomas F. Miller




Claim Map
Vipont Property
Ashbrook Mining District
Box Elder County, Utah

Figure 1

OFFICIAL
COPY
O. M. E.
RECEIVED
MAY 20 1965
INITIALS | CODE

2112 Westminster Avenue
Salt Lake City, Utah 84108
May 17, 1965

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

Dear Sirs:

I talked to the Denver OME recently and they advised me to send one copy of my proposal to Washington, D.C. and one copy to the Denver office, as this would expedite the proposal.

I might add here that it took me nine months to get the lease from the Canadian Company. Several companies were in competition for the lease during this period.

Mr. P. A. Saunderson, Toronto, Canada, who is the president of the Vipont Silver Mining Company, is not in the mining business, but the real estate business, hence the mining lease. He bought this land from another Canadian firm about 2 years ago. Firms and individuals have been trying to lease from the previous firm for 15 to 20 years, but the firm would only offer a one year lease, which the interested parties obviously couldn't accept. It is because of this that the property has remained idle for the last 15 years.

The Vipont Silver Mining Company has excellent original records of the mine. I have in my possession original maps, assay books, mill flow sheets, and exploration and development reports. They have entrusted them to me personally. Therefore, I can not enclose any originals in this report, as they cannot be replaced if lost. However, they can be reviewed if you wish.

The Vipont Silver Mining Company corporate seal does not show through on the reproduced lien subordination agreements, but it is on the original copy, which I have.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

c.c. Office of Minerals Exploration
Federal Center
Denver 25, Colorado

MME Form 40
Jan. 65

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 20 1965

# APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

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

INITIALS CODE

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

Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER 6452

DATE RECEIVED 5/20/65

REGION III

DIVISION CODE

BUSINESS ORGANIZATION *(Check one)*

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

STATE IN WHICH FIRM IS ORGANIZED: Utah

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

| NAME | ADDRESS | TITLE |
|---|---|---|
| N.A. | | |

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

ESTIMATED COST OF PROJECT: $ $327,832

| PROPERTY NAME | LOCATION COUNTY | STATE |
|---|---|---|
| Vipont | Boxelder | Utah |

## 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.

18 May 1965
DATED

Thomas F. Miller
BY *(Signature)*

Sole proprietor
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).]

INT.-DUP. SEC., WASH., D.C

OFFICIAL
COPY
O. M. E.
RECEIVED
MAY 20 1965

| INITIALS | CODE |
| --- | --- |
| | |
| | |
| | |
| | |
| | |

## 1. FINANCIAL ELIGIBILITY

a. See attached letters.

b. None

c. I propose to furnish my share of the financial obligation in the following way:

Cash Assets

$16,000 (no liabilities)

Donated Labor

Myself: Tom F. Miller
Brothers: Jim Miller
Rich Miller
Brother-in-law: George Franks
Wife's uncle: Joe Todd
Wife and sister-in-law: to do the secretarial and accounting work.

All of the above will work on the project and have agreed to donate my financial obligation or share in labor, or in other words, they and myself will donate my share in work instead of dollars. They are doing this for a future share in the mine.

Potential Assets

If it becomes necessary, my wife can teach one or two years. She has been offered a teaching position in Cassia County, Idaho at a salary of $5450.

$5450 x 2 = $10,800, with an annual savings of $3500 x 2 = $7,000 to be put into the project. If she works, most of the secretarial work will be done by my sister-in-law.

I will also receive financial backing from my father and father-in-law at later periods in the project.

I have checked with Continental Bank of Salt Lake City, and they have indicated that they will loan me the money for my equipment after I pay 20% to 1/3 down, depending upon the circumstances.

I have established excellent credit rating from two other banks: Commercial Security in Ogden, Utah, and Ravalli County Bank in Hamilton, Montana, which I am sure would loan me money.

on what?

2112 Westminster Avenue
Salt Lake City, Utah
May 12, 1965

Continental Bank & Trust Co.
200 South Main Street
Salt Lake City, Utah

Dear Sirs:

This is a loan request to borrow $246,000 from your bank to do exploration work for silver on my mining property in northwestern, Boxelder County, Utah.

Terms and Conditions of Loan

1. The loan would be available July 1, 1965.

2. The money would be paid to me at the rate of $13,667 a month for 18 consecutive months. The monthly payments to me would start July 1, 1965 and end Nov. 1, 1965.

1966

3. Repayment will be based on potential production. A 5% royalty per ton shall be paid to the bank on the net smelter return of any ore produced. Net smelter return is what is left after milling, freight, and smelting costs have been deducted from the gross amount.

Proposed Use of Funds

I feel that there is a high probability of locating more silver on this property. My goal is to do an extensive exploration program to find new ore bodies.

The funds would be expended as follows:

| | |
|---|---|
| 1. Tunneling and drifting for a total of 27,00' at a cost of | $160,900 |
| 2. Surface Diamond Drilling: 10,400' at a cost of | 69,088 |
| 3. Underground Diamond Drilling: 9,500' at a cost of | 59,742 |
| 4. Geology | 24,900 ? |
| 5. Underground drill sites | 7,628 |
| 6. Miscellaneous (buildings, cat work, and truck) | 5,574 |
| Total Cost | $327,832 |

I will put up $82,000 in money and donated labor to do the above work.

Additional Information

I have a 15 year lease with a 5 year option on the Vipont Silver Mining Company's property in Boxelder County, Utah.

I will be happy to discuss this matter with you and clarify the exploration targets and goals in detail.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

# THE CONTINENTAL BANK AND TRUST COMPANY

SALT LAKE CITY 10, UTAH

May 13, 1965

Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah

Dear Mr. Miller:

This is to inform you that your loan request to borrow $246,000 to do exploration work for silver in northwestern Box Elder County, Utah, has been declined.

The Continental Bank and Trust Company is not staffed by personnel who are knowledgeable enough in the mining field to make loans of this type.

If we can be of service to you in other respects, we would be most happy to accommodate you.

Very truly yours,

William A. Piatt

William A. Piatt
Assistant Cashier

WAP/bep

2112 Westminster Avenue
Salt LakeCity, Utah
May 12, 1965

Zions First National Bank
102 South Main Street
Salt Lake City, Utah

Dear Sirs:

This is a loan request to borrow $246,000 from your bank to do exploration work for silver on my mining property in northwestern, Boxelder County, Utah.

Terms and Conditions of Loan

1. The loan would be available July 1, 1965.

2. The money would be paid to me at the rate of $13,667 a month for 18 consecutive months. The monthly payments to me would start July 1, 1965 and end Nov. 1, 1965.

1966 ?

3. Repayment will be based on potential production. A 5% royalty per ton shall be paid to the bank on the net smelter return of any ore produced. Net smelter return is what is left after milling, freight, and smelting costs have been deducted from the gross amount.

Proposed Use of Funds

I feel that there is a high probability of locating more silver on this property. My goal is to do an extensive exploration program to find new ore bodies.

The funds would be expended as follows:

| | |
|---|---|
| 1. Tunneling and drifting for a total of 2700' at a cost of | $160,900 |
| 2. Surface diamond drilling: 10,400' at a cost of | 69,088 |
| 3. Underground diamond drilling: 9,500' at a cost of | 59,742 |
| 4. Geology | 24,900 |
| 5. Underground drill sites | 7,628 |
| 6. Miscellaneous (buildings, cat work, and truck) | 5,574 |
| TOTAL COST | $327,832 |

I will put up $82,000 in money and donated labor to do the above work.

Additional Information

I have a 15 year lease with a 5 year option on the Vipont Silver Mining Company's property in Boxelder County, Utah.

I will be happy to discuss this matter with you and clarify the exploration targets and goals in detail.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

# ZIONS
# FIRST NATIONAL BANK

ESTABLISHED 1873

SALT LAKE CITY, UTAH

May 13, 1965

*ZIONS SAVINGS OFFICE*
*70 E. South Temple Street*

Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah

Dear Mr. Miller:

Please be advised that your loan request of $246,000.00 for exploration work in Northwestern Box Elder County, Utah, for mining purposes has been declined. We are not set-up for this type of lending in our Mortgage or Commercial Loan Departments. We, therefore, do not feel that we should venture into this type of lending at the present time.

We appreciate your considering us for this loan and trust that we can be of service in other respects whenever the occassion may arise.

Very truly yours,

C. J. Gerwien
Assistant Vice President

CJG:jj

## 2. APPLICANT'S RIGHTS IN LAND

a. I have leased the land for 15 years, starting January 2, 1965, with a 5 year option. Originally, the lease was signed by myself and Melvin R. Murray, but since then I have bought Mr. Murray out. See attached assignment and release document, dated April 8, 1965, attached to the basic lease. There are no leins or mortgages on the land. The Carson brothers of Grouse Creek, Utah, have a 5 year grazing lease on the land.

b. Legal Description of Claims

(See enclosed claims map of the Vipont Silver Mining Co. property.)

53 Patented Lode Mining Claims (Mineral Survey 5078, 37A, 37B, 38, 39, 40, 41A, 42A, 43A, 44A) covering portions of the following: Sec. 6, T14N, R17W; Sec. 1, T 14 N, R18W; Sec. 31, T15N, R17W; Sec 36, T15N, R18W; Sec. 7, T14N, R17W; Sec. 12, T14N, R18W, SLM.

Patented Claims Covered Under Respective Surveys

| Survey No. | M.E. Pat. No. | Date |
|---|---|---|
| 5078 | 42134 | 6/12/1905 |

HK

" see note re No.5

Dugway No.s 1,2,3,4,5,6, 8 through 20

Southern No.s 1,2,3

Northern No.s 1,2,3,4,5,6 — Not on plat.

Catherine No.s 1,2,3,4,5,6

Contact Mine No.s 1,2,3

? West End 1

? Sentinel No. 2,1 — probably Sentinel Lot No. 39 Pat No. 24578 on page 2.

Poorman

Fraction

Park No.s 1,2,3,4

| Survey No. | M.E. Pat. No. | Date |
|---|---|---|
| 38 | 24577 - Clipper | 7/5/1894 |
| 39 | 24578 - Sentinel | 7/5/1894 |
| 37A | 24576 - Homestake | 7/5/1894 |
| 37B | 24576 - Homestake Millsite | 7/5/1894 |
| 41A | 24640 - Argenta | 7/17/1894 |
| 43A | 24642 - Champion | 7/17/1894 |
| 42A | 24641 - Mahogany | 7/17/1894 |
| 44A | 24643 - Lexington | 7/17/1894 |
| 40 | 24639 - Black | 7/17/1894 |

Note: I have listed only 53 patented lode mining claims here. When the Federal Land Office looked up the M.E. Pat. numbers for the claims, they said that only the above were patented and that the following millsites were not: Champion Millsite, Survey 43B; Lexington Millsite, 44B; Argenta Millsite, 41B; and Mahogany Millsite, 42B. The Mahogany Millsite is covered by patented claim Park No. 4. I have not proposed any work to be done on these millsites. If, however, you find that the millsites covered under Survey 44B, 43B, 41B, and 42B, please correct and change to read 57 patented claims. If these claims are not patented, they should be excluded from the lien.

find what?

Names by which the property is known:

The Vipont

The Vipont Silver Mine

c. See attached Lien and Subordination Agreement.

Owner's Address:

Realty Investment Management Co. Ltd.
P. A. Saunderson, General Manager
170 Bay Street
Toronto, Ontario, Canada

# MINE LEASE

THOMAS FREDERICK MILLER and MELVIN RAY MURRAY, as Lessees, hereby enter upon this mining claims lease agreement on this 2nd day of January, 1965, with the VIPONT SILVER MINING COMPANY, a corporation, as Lessor. The Lessor and Lessees agree to abide by the following terms and conditions as outlined below:

I. LEASE: Lessor hereby leases the following mining claims to Lessees, and they shall have the right to work, mine, develop, mill and ship all of the ore, minerals and concentrates in all of the mining claims and property now owned by the Vipont Silver Mining Company in Utah, which consists of fifty-seven (57) patented lode mining claims, all of which said claims are situated in the Ashbrook Mining District, Boxelder County, State of Utah, and recorded in the office of the County Recorder of Boxelder County, State of Utah, a reference to said records being hereby made for a more particular description of each and all of said mining claims, said claims being named as follows:

Dugway No. 1, Dugway No. 2, Dugway No. 3, Dugway No. 4, Dugway No. 5, Dugway No. 6, Dugway No. 8, Dugway No. 9, Dugway No. 10, Dugway No. 11, Dugway No. 12, Dugway No. 13, Dugway No. 14, Dugway No. 15, Dugway No. 16, Dugway No. 17, Dugway No. 18, Dugway No. 19, Dugway No. 20.

Southern No. 1, Southern No. 2, Southern No. 3, Northern No. 1, Northern No. 2, Northern No. 3, Northern No. 4, Northern No. 5, Catherine No. 1, Catherine No. 2, Catherine No. 3, Catherine No. 4, Catherine No. 5, Catherine No. 6

Park No. 1, Park No. 2, Park No. 3, Park No. 4, Sentinel, Sentinel No. 2, Contact No. 1, Contact No. 2, Contact No. 3, Clipper, Black, Fraction, Homestake, West End, Argenta, Mahogany, Lexington, Champion, Poorman and Lexington Mill site, Argenta Mill Site, Mahogany Mill Site, Homestake Mill Site, and Champion Mill Site.

together with all water, machinery, tools and applicances now situated upon said property or appurtenant thereto and adequate mill sites.

II. TERM: This lease shall extend for fifteen years from January 1, 1965, subject to the provisions for termination and extension stated below.

III. ROYALTIES: Lessees shall pay to Lessor, on all ores extracted from the leased premises and milled and sold, a

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royalty of an amount of 10% of the net mint, smelter or custom mill return per ton of ore. Net mint, smelter or custom mill returns, as used herein, shall mean the gross value as figures by the mint, smelter or custom mill less mint, smelter or custom mill treatment charges or deductions and transportation or freight charges.

Charges for the processing of any ores or minerals mined, extracted and produced from the leased premises shall not exceed custom mill charges. If custom mill charges do not prevail, then and in such event such charges shall not exceed those of the nearest custom mill made for the processing of ores and minerals of like grade and quality as are or may then be mined and produced from said leased premises.

Freight and transportation charges made for ores mined and produced from the leased premises to the mill or smelter shall not exceed those charges for which the Lessor would be willing to pay for such transportation services or for which a reliable transportation or freight company would require as compensation for such transportation service.

Royalties on ores produced from the leased premises which are milled from the 1st to the 15th days, inclusive, of any calendar month, shall be paid by Lessee on or before the 10th day of the next succeeding calendar month.

All royalties payable hereunder by Lessees to Lessor shall be paid by depositing the same to the credit of the Lessor in the Walker Bank & Trust Co. bank at Salt Lake City, Utah. Said bank shall continue as a depositary for the payment of royalties hereunder regardless of any changes in the Lessor's ownership of the leased premises, unless and until the owner or owners of the majority in interest of the Lessor's ownership of the leased premises shall, in writing, designate to Lessees some other bank or trust company as depositary to receive such royalties payable hereunder.

If royalties payable hereunder are paid directly to

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Lessor by the mill or smelter, then and in such event the matter and method of the payment of royalties by Lessees to Lessor herein provided shall not apply.

IV. TAXES: Lessor shall pay all Federal, State and County taxes of any kind assessed against Lessor on account of the receipt of royalties by Lessor hereinabove provided to be paid to Lessor by Lessees.

Lessees shall pay all State and County tax assessments upon said leased premises and any and all structures and other improvements, machinery, equipment, tools, supplies and personal property whatsoever placed thereon by Lessees. Lessees shall pay such State and County taxes, if any, as may be assessed against the leased premises because of additional valuation placed upon the leased premises by reason of the ores and minerals therein or because of the production of the ores and minerals therefrom.

V. ORES NOT TO BE CO-MINGLED: Lessees shall not mix any ores from the leased premises with the ores, minerals or products therefrom derived from any other property and shall not adulterate any ores produced from said leased premises. It is understood and agreed that all ores mined from leased property which are of such a grade as not to warrant shipment from milling, smelting or for any other operations, shall remain the property of and shall be subject to the control and disposition of Lessor.

VI. EQUIPMENT: Any machinery, equipment or tools presently on the property can be used at the Lessees' discretion. Additional machinery, tools and equipment utilized by Lessees shall remain the property of Lessees.

VII. DEVELOPMENT: Development and production shall be done at the time, on the claims and volume determined at the Lessees' discretion, in a good and workmanlike manner and on a non-interference basis from Lessor. However, Lessees shall expend $20,000.00 the first year, $60,000.00 the second year,

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$60,000.00 the third year and $60,000.00 the fourth [illegible], in direct costs for drilling, underground rehabilitation, geological studies, drifting, shaft, exploration or development work on the leased properties. Development and progress reports shall be supplied to the Lessor on a quarterly basis (every three months) covering the development of the property. Lessees are obligated to start regular production following the exploration and development period noted above, and continue each year. All mining records, journals, assay reports, graphs, and maps that would serve as development aids shall be made available to the Lessees upon request. Lessor may inspect the mining operations at reasonable times and its agents are granted access for inspection at their own risk.

VIII. STATE AND FEDERAL ENACTMENTS - INDEMNIFICATION OF LESSOR - SUCCESSORS AND ASSIGNS: Lessees, in the operation and development of the property hereby leased, shall be subject to all applicable Federal enactments, laws of the State of Utah and all Federal or State rules and regulations regarding employees' liability, workman's compensation, Social Security and unemployment insurance; and said Lessees covenant and agree to indemnify and hold harmless Lessor from and against the payment of any and all damages, claims, costs and expenses due to the existence of such enactments or otherwise.

Lessees shall further indemnify and hold harmless Lessor from and against any and all damages claims, costs and expenses arising out of damage to property or any injuries to or death of the employees or Lessees, or any other person whomsoever, other than the Lessor and those acting under it where such injury, death or damage occurs because of or in connection with the use, operation or development in any manner of the property hereby leased, whether such claims are based upon a right conferred by common law or by statute.

IX. NON-LIABILITY NOTICES: Lessees shall keep posted in conspicuous places about the leased premises such

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notices as will inform whom it may concern that said mining property is operated under lease and that the Lessor shall not be liable for any of the expenses or changes of operation.

X. PROPERTY TO BE KEPT FREE OF LIENS: Lessees shall pay and satisfy all claims for materials, supplies and labor used or employed in connection with the working of said mining property leased hereby, and shall keep said property free of liens or encumbrances of any and every kind except such as might result from State and County tax assessments not required to be paid by Lessees, or such as may result from the acts of others than Lessees, those in privity with them, or such as may be created with the express written consent or agreement of the Lessor. Lessor shall execute the customary lien subordination agreement with the U. S. Department of Interior Office of Minerals Exploration for Lessees' financing.

XI. TERMINATION:

A. It is mutually understood and agreed that Lessees may, at any time after completion of the exploration and development work provided for in the preceding paragraph numbered VII surrender and terminate this lease as to all of the property covered hereby upon giving thirty (30) days notice in writing to Lessor and upon payment to Lessor of all sums due and payable hereunder to Lessor to the effective date of such surrender.

B. This lease is made upon the condition that Lessees shall perform all of the covenants and agreements herein set forth to be performed by them, and if at any time Lessees shall fail for a period of thirty (30) days to make any royalty payment due hereunder within thirty (30) days from the date when payable, or if there shall be any other default on the part of the Lessees due to other than acts of God, strikes, lockouts, storms, floods, a public enemy or unusual casualty, governmental regulations or any other cause beyond the reasonable control of Lessees, and if

default shall continue for a period of thirty (30) days after written notice of such defaults being given to the Lessees, then and in either of such events this lease shall terminate and the leased premises shall revert to the Lessor and the Lessees shall deliver to the Lessor said mine and mining property in good order and condition, without waste or destruction.

XII. REMOVAL OF EQUIPMENT: It is mutually understood and agreed that in the case of forfeiture, surrender or other termination of this lease, all underground timber, shafts, linings and other fixtures necessary for the preservation of the mine and the mining property shall be and remain a part of the realty and shall revert to Lessor without further consideration or compensation.

It is further understood and agreed that all personal property of the Lessees, located within the leased premises and all buildings, machinery, equipment and tools, (other than the fixtures and property which is to become the property of the Lessor as herein provided) shall, in the case of forfeiture, surrender or other termination of this lease, remain upon the leased premises and shall be held by Lessor as guarantee in lieu of bond until all terms of this lease with respect to the payment of royalties earned to that date and the preservation of the property shall be complied with. Upon compliance with and performance of such conditions and obligations with respect to the payment of royalties and preservation of the property, Lessees shall be entitled to and may, within 90 days after such termination of this lease, or within such extension of time as may be granted by Lessor, remove from the leased premises such personal property and improvements of Lessees other than those items which are to remain the property of the Lessor as aforesaid.

XIII. LESSEES' OPTION OF RENEWAL: In consideration of the foregoing lease and the expenditures to be made by Lessees hereunder, Lessor hereby grants to Lessees the right and option, by written notice given by Lessees to Lessor at any time

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within six (6) months prior to the termination of the primary term of this lease, to extend and renew this lease for a further and additional term of five (5) years, provided that this lease and option shall not have been sooner terminated in any manner and for any reason. It is mutually understood and agreed that in the event the option for renewal and extension of the term of this lease shall be invalid or ineffective under the laws of the State of Utah, now in effect or in effect at the date of the maturity of said option of renewal and extension, such invalidity or ineffectiveness shall not in any manner affect the validity, effectiveness and enforceability of any of the other provisions of this lease.

XIV. PURCHASE OPTION: If the Lessor at any time desires to sell the said mining claims, the Lessees shall have the first right of refusal and option to buy the mining claims at the purchase price and terms offered by a bona fide prospective purchaser. Lessor cannot demand the surrender of the lease in case the property is sold to another party. If the land is sold to another party, the terms of this lease agreement will still be valid and remain in force and effect.

XV. OWNERSHIP: Lessor represents that it owns the said mining claims described above and will warrant Lessees' quiet enjoyment and right to mine and remove ores therefrom during the term hereof and any extensions. This lease shall bind the parties hereto, their heirs, successors and assigns. Lessor retains the right to lease surface grazing to third parties. Lessees shall fence open shafts and shall allow such volume of water from the mines to be made available for ~~cattle~~ livestock watering not reasonably required for milling, drilling or mining purposes.

XVI. ASSIGNABILITY OF LEASE: It is understood and agreed that Lessees shall not assign this lease in whole or in part or sublease the whole or any part of the property hereby leased without consent of the Lessor being first had and obtained.

The provisions of this mining lease shall inure to

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the benefit of and shall be binding upon the successors and assigns of the Lessor and shall, subject to the limitations of this paragraph, inure to and be binding upon the successors in interest and legal representatives of the Lessees.

XVII. NOTICES: Notices of termination or required performance shall be given to Lessor by mailing, postage prepaid, to Mr. Hugh C. Garner, 530 Kearns Building, Salt Lake City, Utah, and to Lessees by mailing, postage prepaid, to Mr. Harry D. Pugsley, 600 El Paso Gas Building, Salt Lake City, Utah. Either party may require different notification by written designation to the other.

XVIII. NO REPRESENTATION OF CONDITION: Lessees covenant and represent that Lessees have examined and know the condition of the leased premises and that no representation as to the condition or repair of the demised premises or value thereof has been made by the Lessor or its agents prior to or at the issuance of this lease.

VIPONT SILVER MINING COMPANY
a corporation, Lessor

By _____

Thomas Frederick Miller

Melvin Ray Murray
Lessees

PROVINCE OF ONTARIO )
: SS
CANADA )

~~On this _____ day of January, 1965, personally appeared~~ before me P. A. Saunderson, who duly acknowledged to ~~me~~ that he executed the above lease for and on behalf of Vipont Silver Mining Company, the Lessor.

_____
Notary Public

My Commission expires: Residence:

_____

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HAMPTON & WATKISS
ATTORNEYS
600 EL PASO
CENTRAL GAS BLDG.

STATE OF UTAH )
) ss.
COUNTY OF SALT LAKE )

On this 31st day of December, 1964, personally appeared before me Thomas Frederick Miller and Melvin Ray Murray, the signers of the above instrument, who duly acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and seal.

My commission expires 11/9/67

Edith M. Daines
Notary Public, Residing at:
Salt Lake City

PROVINCE OF ONTARIO )
) SS
CANADA )

On this 25th day of February, 1965, ~~1964~~ personally appeared before me P. A. Saunderson, who, being by me duly sworn, did say that he is the President of Vipont Silver Mining Company and that said instrument was signed in behalf of said corporation by authority of its Board of Directors and said P. A. Saunderson acknowledged to me that said corporation executed the same.

My Commission ~~expires~~ is for life.

Notary Public, Residing at:
Toronto, Canada.

ASSIGNMENT AND RELEASE

For TEN DOLLARS ($10.00) and other valuable consideration, and by way of final compromise settlement of all differences, the undersigned mutually agree as follows:

1. Thomas F. Miller does hereby assume and agree to perform all of the terms and conditions of that certain mine Lease dated January 2, 1965, with Vipont Silver Mining Company relating to 57 mining claims in the Ashbrook Mining District in Boxelder County, Utah, and does hereby agree to hold harmless and indemnify Melvin Ray Murray from all duties and liabilities thereunder.

2. Melvin Ray Murray does hereby sell, assign and transfer over to Thomas F. Miller of Salt Lake City, Utah, all right, title and interest of said Murray in and to the Mine Lease referred to in the preceeding paragraph and all right, title and interest in and to the mining claims and the projected joint venture between the parties for the development of said properties.

3. Each and both parties consent to the substitution of Thomas F. Miller to all rights, powers and duties established by said Mining Lease as the sole lessee. Any joint venture relating to the said properties between the parties is hereby terminated.

Dated at Salt Lake City, Utah, this 8 day of April, 1965.

Thomas F. Miller

Melvin Ray Murray

GOLEY, HAVEL
ON & WATKISS
TORNEYS

STATE OF UTAH )
: SS
COUNTY OF SALT LAKE )

On this 8th day of April, 1965, personally appeared before me THOMAS F. MILLER, one of the signers of the foregoing Assignment and Release, who duly acknowledged to me that he executed the same.

Charles Paris
Notary Public
Residing in Salt Lake City, Utah

My Commission expires: Nov 18, 1968

STATE OF UTAH )
: SS
COUNTY OF SALT LAKE )

On this 8th day of April, 1965, personally appeared before me MELVIN RAY MURRAY, one of the signers of the foregoing Assignment and Release, who duly acknowledged to me that he executed the same.

Charles Paris
Notary Public
Residing in Salt Lake City, Utah.

My Commission expires: Nov 8, 1965

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ATTORNEYS
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SECTION
3

## 3. PHYSICAL DESCRIPTION

a. Reference the enclosed generalized map and various cross section maps of the Vipont Mine for illustrative purposes.

On the 57 patented lode mining claims presently consisting of the Vipont Silver Mining Company's property in the Ashbrook Mining District, Utah, there has been approximately 4½ miles of development and exploration work completed. The mining and exploration operations in the Vipont Silver mining actually consisted of three periods. The first and latter periods were relatively minor compared to the second.

### 1. First Period 1873 to 1917

History of Mines and Prospects

"Silver has been known to occur in the rocks of this district since 1873, when the first claims were staked. The following is quoted from V.C. Heikes, in Ore Deposits of Utah:

'The first claim, the Homestake, was located August 19, 1873, and the district was organized July 1, 1874. The deposits have been worked at various times in a small way and are opened by a tunnel 1,400 feet long.

'In 1891 the Lexington and Argenta claims of the Vipont group were worked under bond and lease. The Argenta claim, which was found to yield the richest silver ore, shipped nearly 26 tons, containing an average of 116.9 ounces of silver and 0.13 ounce of gold per ton, to the old Telegraph smelter in 1892 and a similar lot in 1893. The option was allowed to expire for want of sufficient funds for development.

'A milling plant, erected on the Vipont group in August, 1897, contained a Lewis roller mill, two amalgamating pans, and one settler, and treated, in 14 days, an average of 8 tons of ore per day, resulting in a bar of bullion weighing 99.5 pounds, of which one-twentieth was reported to be gold and the remainder silver. In 1899 the mill equipment was enlarged by a double-deck Wilfley table.....From 1899 to 1904, 685 tons of ore were mined. The production of the district during the seventies and eighties would aggregate about 700 tons of ore. The mines had been idle since 1904 but became active in 1917.'

"From 1899 to 1917, inclusive, 712 tons of ore yielding 125 tons of concentrate, valued at $20,153 were produced. In 1918, test shipments only were made. In 1919 the Vipont Silver Mining Company secured the property under bond and lease from the Vipont Mining Company and no shipments were made as the new mill was under construction."[1]

Reference generalized map of Vipont Mine for Lexington, Argenta, and Cassius workings.

"During the period of 1905 to 1917, work done in the district was principally for the purpose of holding claims and the Midway Tunnel and A-level Tunnel of the Vipont Mine were completed."[2]

## 2. Second Period 1918 thru Aug. 1923

Active large scale development work in the district did not start until 1918, when the Vipont Silver Mining Company was formed by a New York exploration company. From 1918 until 1923, when this company ceased exploration work, the district attained a high ranking position in the state's total production of silver. The Vipont Silver Mining Company discontinued active operations on August 1, 1923, when buying under the Pittman Silver Purchase Act ceased and the price of silver dropped from $1.00 to $.64 an ounce. Extensive underground exploration, development and mining work was carried on by the Vipont Silver Mining Company during this four-year period.

The A-level Tunnel was extended to its present location (ref. map) during this period. The Phelan Tunnel was also started and completed to its present location (ref. map). The various sub levels from the Phelan Tunnel through A-level and from A-level to the surface were completed as shown on the map during this period, except for some work the Spencer Brothers did between 1934 and 1942. Ore was never produced from the Midway Tunnel because it caved shortly after it was developed; insufficient timbering was probably the main reason for its caving. However, good ore was found in the Midway, according to Superintendent Wardlaw.

Extensive surface exploration was carried on by the Vipont Silver Mining Company during this period. Shallow shafts, pits and trenches dot the area. According to records which I have, many good silver samples were taken from many of these exploratory workings. My maps do not show these small workings because they do not appear on the original maps, and I have not surveyed these points.

Various cross sections from Foss's[1] report are included in this section for additional illustrative purposes.

The Vipont Silver Mining Company, according to reports, had a good engineering and geological staff which kept accurate, up-to-date maps of the mine. I have in my possession excellent original records of the mine

during this four year period. The records include explorations, development, mining, and assay reports. I also have many of the original maps.

### 3. Third Period 1924 to present

Mr. T. Lindsley leased the mine in 1924. However, he did not carry out significant production, mainly due to the depressed silver price. According to Peterson, the mine remained idle until 1934, when operations at the Vipont Mine were renewed on a small scale. The leasees were the Spencer Brothers. Harold Spencer, now president of Centennial Mining Company in Eureka, Utah, gave me some good information on what they did during this period that they leased the mine. (1934-1942) The Spencer Brothers did not extend the A-level, or Phelan Tunnel. They did, however, rehabilitate the Phelan Tunnel and sank the two winzes at the north end of the Phelan Tunnel. They also stoped out the area above the Phelan to the lower end of A-73 stope, which connected to the A-level Tunnel. A-73 stope is the furtherest stope back on the Phelan Tunnel. It was also one of the richest producing stopes in the mine. (See map for A-73 stope.)

The Vipont Silver Mine has been shut down since 1942. There has been only a little assay work done by outside parties since then.

At present there are virtually no production facilities. The main adits are also caved. There are also no exploration activities in operation at the present.

## Brief Statement on Old Sentinell, Midway, and Lexington-Argenta Mine Workings

### Sentinell Workings

"The Sentinell Workings are a group of shallow workings in the Sentinell limestone, situated about 1,500 feet northeast of A-portal of the Vipont mine. (They are very irregular, and the ore seems to have been found in patches and pockets along small slips and crenulations in the limestone. Except for some prospecting, active work has not been done in this group of workings since about 1922, when a small shipment of high grade ore was made from the lower workings. It is noteworthy that, compared with the Vipont ores, these ores have higher gold values. The ore is highly oxidized, though small pieces of essentially unaltered sulphides have been found."[3]

### Midway Tunnel

"Accurate information about this tunnel was not available. The tunnel is approximately 1,500 feet long and is driven through the Wardlaw shale into the Vipont limestone. The elevation of the portal, equal to

SECTION 1

that of the Phelan tunnel, is 7,201 above sea level. When active exploratory work by the Vipont Silver Mining Company ceased in 1923, A-level of the Vipont mine was being driven westward to connect with a raise to be driven from the Midway Tunnel. Accurate information as to the occurrence of ore in the Midway Tunnel was not available to the writer, though Mr. H. K. Lake states that some was found in an east drift. Before this could be removed, the tunnel caved and has not been opened since."[4]

## Lexington-Argenta Workings

"These workings are the site of the first discovery of ore in the district. They are located from 100 to 500 feet below the Midway Tunnel and 2,000 feet to the west. The Argenta workings consist of three tunnels driven along a vertical break in the Phelan limestone. At present, they are largely inaccessible. A little stoping appears to have been done in the lowest of the tunnels and a small amount of ore may have been extracted. The ore appears to be in the form of small pockets in the limestone. These mines have not been worked for more than 30 years.

"The Lexington group, on the south side of Lexington Canyon, consists of a few short tunnels driven southward through the Phelan limestone to the contact with the lower porophyry. These tunnels are all caved at the present time and information as to the nature of the underground workings was not available. Ore which could certainly be considered to have come from these workings was not found."[5]

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1. Foss, A. L.: The Geology of the Vipont Mine. Unpublished undergraduate thesis, Univ. Minn., Dept. Geol., 1923

2. Peterson, Victor E., Economic Geology, vol. 37, 1942, p. 466

3. Ibid; p. 500

4. Ibid; p. 500-501

5. Ibid; p. 501

b. None

c. According to Peterson,[1] production from 1873, when the first claim was staked, to 1899 aggregated approximately 700 tons with a recoverable value of $20,000. Production from 1899 to 1917 has been summarized by Heikes[2] in the table which follows.

The recoverable mineral production data for the Vipont Silver Mine was obtained from the Minerals Resources of the United States Department of Interior, U.S.G.S., and Department of Commerce; Bureau of Mines, volumes for the years 1918, 1920, 21, 22, and 23,

The production records for the mine from 1924 through 1942 were very sketchy and are not complete. However, according to Peterson, the Spencer Brothers mined about 300,000 ounces of silver and several hundred ounces of gold from 1934 through 1941.

Production From Ashbrook District 1899-1917

| Year | Ore Mined Short Tons | Gold Ounces | Silver Ounces |
|---|---|---|---|
| 1899 | 225 | 37.17 | 18,245 |
| 1900 | 22 | 9.04 | 3,374 |
| 1901 | 200 | 3.30 | 1,639 |
| 1902 | 38 | 5.58 | 1,640 |
| 1903 | 91 | 7.75 | 3,189 |
| 1904 | 119 | 4.30 | 1,612 |
| 1917 | 27 | 3.74 | 1,400 |
| | *712 | 70.88 @ 0.0995 oz./ton | 31,099 @ 43.6783 oz/ton |

*Also yielded 125 tons of concentrate

| | | | |
|---|---|---|---|
| 1918 | 8287* [8212] | 116.10 [930.83] | 21,009* [20,669] |
| 1919 | ---- | ------ | ------ |
| 1920 | 32,808* [32,457] | 1,024.97 | 525,853* [524,473] |
| 1921 | 43,219 | 1,331.63 | 716,809* |
| 1922 | 63,710* [63,903] | [2,976.00] 2,965.04* | 1,043,[656] 1,030,925* |
| 1923 | 31,721 | 1,965.56 | 775,198 * |
| Sub Total | [179,512] 179,745 * | [8,228.99] 7,403.30* @ 0.0411 oz | [3,080,805] 3,077,834 * @ 17.12 oz |

* Compiled insofar from Mineral Resources volumes

| | | | |
|---|---|---|---|
| 1899-1923 | 180,457 | 7,474.18 @ 0.0414 oz. | 3,108,933 @ 17.22 oz. |

| Year | Ore Mined Short Tons | Gold Ounces | | Silver Ounces | |
|---|---|---|---|---|---|
| 1924 | not known | 12.58 | 15.57 * | 103 | 542 * |
| 1925 | not known | 46.83 | 57.71 * | 11,463 | 12,374 * |

Reviewed (Econ. Geol. vol. 37, no. 6) reports only several hundred ounces gold.

1926 through 1933--very little, or no production

1935 through 1942--1,000 ounces of gold; 300,000 silver

Total Known Production:

| | | |
|---|---|---|
| 180,224 tons | 83,027 ozs. gold<br>7,747.46 oz. Au | 3,423,470 ozs. silver<br>3,421,049 oz. Ag |

Not applicable for no records since 1923

There were also small quantities of recoverable copper, lead, and arsenic in the Vipont ores, but the record as to the approximate amount is so incomplete and sketchy, I have omitted it.

The following is a narrative summary as found in the U.S.G.S. reference above for the years 1917 through 1941.

1917 Ashbrook District--A small quantity of silver ore carrying a little gold was shipped from the Vipont mine in 1917.

1918 Ashbrook District--Ore from the Vipont property was shipped to Oakley, Idaho on the Oregon Short Line Railroad. The ore carried about 40% silica, 4% Fe, and 22% lime, and contained from 12 to 79 ounces of silver per ton.

1919 Ashbrook District--The Vipont Mine was actively developed and a concentration mill using flotation was under construction in 1919, but no production was reported.

1920 Ashbrook District--(Vipont) Important development work and the completion of the flotation mill at the Vipont Silver property resulted in the shipment of considerable silver concentrate. Oakley, Idaho, 20 miles north of Vipont, on a branch of the Oregon Short Line Railroad, is the loading station for ore.

1921 Ashbrook District (Vipont)--Concentrates were produced from siliceous silver ore from the property of the Vipont Silver Mining Company. The flotation mill, operated by electric power, has a daily capacity of 175 tons. The minerals, argenite, sphaterite, native silver, and chalcopyrite have been noted. Development is carried on through

a 3,000 foot adit, and the present depth reached on the vein is said to be 1350'.

Vipont Silver Mine ranked third in total silver output in Utah 1921.

1922 Ashbrook District (Vipont)--The Vipont Silver Mining Company, which ranks fifth among the producers of silver in Utah and employs about 300 men in the mine and mill, eclipsed all former records. A sulphide concentrate containing principally pyrite and a little galena, with about 3% arsenic, was recovered in the mill and shipped to the smelter in Toole, Utah. The mine is opened by tunnels, one of which is 2700' long and another 4000'. Altogether, 16,000' of development work was done on the property in 1922. A 250-ton flotation mill was operated the greater part of the year. The product from the mine and mill was hauled by autotrucks and wagons to Oakley, Idaho, 26 miles to the north.

1923 Ashbrook District (Vipont)--The mine and mill of the Vipont Silver Mining Company were operated until August, but production on a large scale ceased June 1, when purchases of silver under the Pittman Act were stopped. The ore was treated by flotation, and the concentrates were principally silver, with a little gold, lead and copper. The mine was the sixth largest producer of silver in Utah.

Ten properties in Utah produced more than 500,000 ounces of silver. Vipont Silver was sixth. Utah was the largest producer of silver in the United States in 1923.

1925 Ashbrook District--A leasee shipped ore and concentrate from the Vipont Silver Mine.

1928 Ashbrook District--Old mill machinery at the Vipont Mine in the Ashbrook District, which produced considerable gold and silver as late as 1923, was sold.

1935 Ashbrook District--The old Vipont Mine, a large producer of silver ore from 1920 to 1924, was worked by leasees who shipped 3 cars of high grade siliceous ore.

1935-1936 Ashbrook District--Leasees continued operations at the Vipont Mine in the Ashbrook District in 1935 and 1936 and made regular shipments of siliceous silver ore of smelter grade.

1937 Ashbrook District--The Vipont Mine was operated by leasees and more than a 1000 tons of silver ore were shipped in 1937 for smelting.

1938 Ashbrook District--The output of silver from Boxelder County decreased markedly in 1938, as leasees at the Vipont Mine suspended shipments of ore; only 30 tons shipped.

1939 Ashbrook District--A leasee shipped 160 tons of silver ore from the Vipont Mine in 1939--an increase from 30 tons in 1938.

1941 Ashbrook District--Silver ore, all from the Vipont property, comprised virtually the entire output of the Ashbrook District in 1941.

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1. Peterson, Victor E., Economic Geology, vol. 37, 1942
2. Heikes, V. C., Ore Deposits in Utah

d. Known ore reserves--The only ore reserves that can possibly be considered known are back in the Midway Tunnel, which caved in the 20's before it could be mined. According to Wardlaw[1] they had a streak of ore that was 3' thick and assayed 100 ozs per ton.

The Spencer brothers, during the period of 1934-1942, cleaned up virtually all the ore reserves that the Vipont Silver Mining Company left. They did very little exploration and development work and therefore did not leave any ore in sight.

According to Harold Spencer there is no mineable ore in sight. I talked with Mr. Spencer about 2 months ago concerning this matter.

There is some good milling ore on some of the dumps, which may be considered in the reserves.

Comment

Near the Sentinell workings the Skoro Mining Company is presently running a tunnel east toward the Sentinell limestone. Their purpose is to explore and mine ore within the Sentinell limestone. According to them, they drilled a churn hole in the Sentinell and hit 21' of 46 oz. silver ore. If this is true, the lead probably extends into the Vipont property, as it is only a few feet away. If this is true, this could be considered an ore reserve.

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1. Wardlaw, F. A.--report in the form of a letter to a leasee of the Vipont Mine. Wardlaw was a former superintendent of the mine. This report is enclosed at the end of this section.

e. Preface Comments

The generalized map of the Vipont Mine was redrawn by myself from an old Vipont Mine map, and updated from a map in Peterson's report. Data such as structure contours have been added by me. This map, as you will note, shows the bed contact, the major faults and has an abbreviated narrative on the geologic formations within the property.

The following narrative on the structural geology, ore minerals are taken from Peterson's doctorate thesis of the district, F.A. Wardlaw's report (a copy of Wardlaw's report will be found at the end of this section), A.L. Foss's undergraduate thesis, and a geologic map of northwestern Utah, compiled by W. L. Stokes, University of Utah, 1963.

Structural Geology

"The most prominent structure within the district is a broad, spool-like syncline which plunges at a low angle to the south. Except for the complicated structures within the pre-Cambrian rocks, all other major structural features in the district are superimposed on this structure. The district is situated in the north end of the fold. The length of the fold is not known, though it is apparent that it extends several miles beyond the southern limits of the district. Prior to extensive displacement by north-south and east-west normal faults, thefold appears to have been approximately symmetrical with the steepest dips on the flanks about 20 degrees. The fold is not simple, but is complicated by the presence of numerous major and minor crenulations, the largest of which have a roughly radial relation with respect to the major fold. These crenulations have played a very important part in the localization and distribution of the ore deposits of the district. Further complications in the general outline of the fold have been introduced by the warping associated with two periods of magmatic intrusion.

"Though on a large scale, faulting within the district is not complicated and is confined mainly to several large normal faults. These faults may have played an important part in the distribution of the intrusives associated with the ore deposits, but no evidence was observed that would indicate that they directly influenced the distribution of the deposits themselves. The faults all appear to belong to approximately the same period of deformation and antedate both the late intrusives and the ore deposits. It is assumed from physiographic evidence, from which the age of the late intrusives can be roughly estimated, that these faults belong to a period of deformation closely following the Larmide revolution, when compressive forces had ceased, and tensional forces prevailed. It is clear that these faults are much older than the late 'Basin-Range' faulting. Faults of similar age have been described by Anderson[1] in eastern Cassia County, Idaho, and are attributed to deformation closely following the Laramide revolution. The formation of the major fold of the district appears to have been concurrent with Laramide disturbances."[2]

Wardlaw mentions that the ore-bearing limestone (Vipont limestone) is cup by numerous faults and slips striking usually northeast and southwest. The best ore zones have been found at the intersection of these faults with the Vipont limestone and in no particular horizon; some very good bunches of ore were found on the foot wall contact of the rhyolite; others just as good were under the shale hanging wall.

Structural features within the Vipont limestone, though not clearly discernable in all cases, appear to have been the most important factors in localizing the ore deposits. The workings of the mine are along the northeastern flank of the synclinal fold forming the major structure of the district. Reflection of this fold is seen in the outline of the main levels of the mine; these main levels correspond in general to the contact between the Vipont limestone and the lower porphyry.[2]

Ore Deposits

"The ore bodies of the Vipont Mine occur in the Vipont limestone, between the overlying Wardlaw shale and underlying lower porphyry. They are not confined to a particular horizon within this formation, but are distributed from the porphyry footwall to the shale hanging wall, and usually conform to bedding planes."[2]

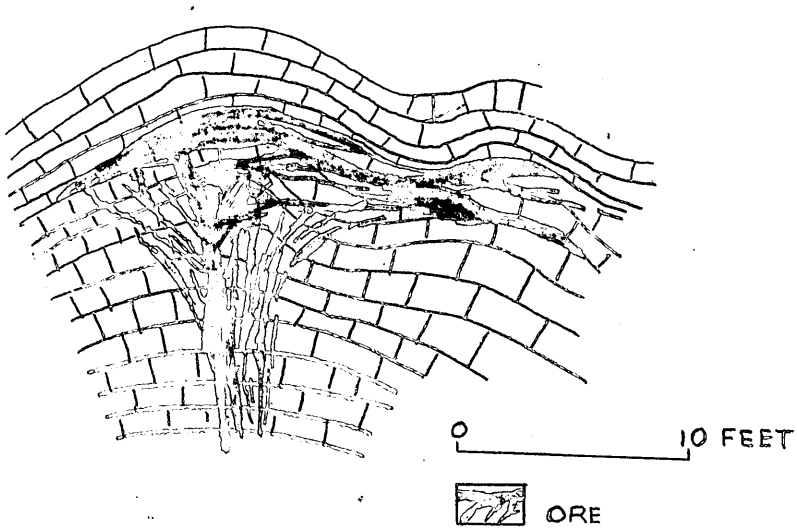
"The mineral deposit is a silver ore--values chiefly in argentite and native silver. The formation in which the ore bodies occur is limestone, about 39' in thickness dipping to the southwest at about 20 degrees. A bed of black shale about two hundred feet thickness overlies the limestone while a quartz-rhyolite underlies it. The rhyolite is approximately 100' in thickness. Underlying this rhyolite is a very thick and extensive formation of limestone."[3]

"The ore bodies are irregular masses as replacement bodies in the Vipont limestone."[4]

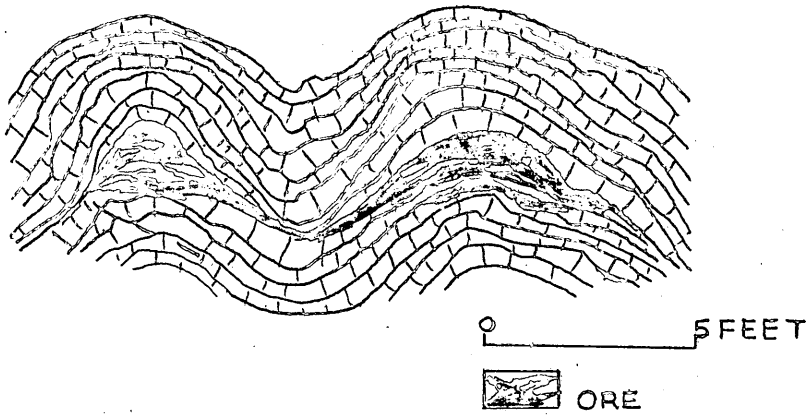
"All the ore deposits thus far found in the district are replacements in limestone and all have an irregular, patchy distribution and form in each of the three limestone formations recognized in the district, but deposits in the Vipont limestone are much more abundant and widespread

"Extensive prospecting has revealed that ore values are almost invariably associated with limestone in close proximity to the porphyries and that the values in general diminish with distance from these rocks. Replacements have not been general, but in all cases have been localized by structural features within the limestones."[2]

(See ore deposit sketches on next page.)




IDEALIZED SKETCH SHOWING THE RELATION OF ORE TO LIMESTONE IN UPPER K-46 STOPE




IDEALIZED SKETCH SHOWING THE RELATIONS WHICH EXISTED IN TWO ADJACENT STOPES IN THE "TREPASS" ABOVE A-LEVEL

## ORE MINERALS

### Major Ore Minerals

Native Silver
Argentite
Pyrargyrite
Gold

### Minor Ore Minerals

Argyrodite
Sphalerite
Chalcopyrite
Galena
Covellite
Cerussite
Malachite
Azurite
Cuprite
Native Copper
Arsenopyrite
Orpiment
Realgar
Pearceite

## OTHER MINERALS

Sericite
Quartz
Pyrite
Limonite
Hematite
Calcite

GENERALIZED STRATIGRAPHIC SECTION OF ASHBOOK DISTRICT

| AGE | | FORMATION | THICKNESS | DESCRIPTION |
|---|---|---|---|---|
| TERTIARY | ? | Andesite Trachyte | ? | Course texture. |
| | EOCENE | Rhyolite Porphyry | 50-100 | Pea green to yellowish tan; weathers brown. Predominantly finely crystalline. |
| PALEOZOICS | CARBONIFEROUS (?) | Phelan Limestone | 1,000-1,500 | Course to finely crystalline, light blue-gray, massive bedded limestone, locally cherty. |
| | | Wardlaw Shale | 400 | Black to gray, thin to massive bedded, pyritic shale, locally containing lenses of gray dolomitic limestone. |
| | | Vipont Limestone | 50-100 | Fine-grained, crystalline, blue-gray limestone, locally containing numerous small calcite stringers. |
| | CAMBRIAN (?) | Sentinell Limestone | 50-100 | Light gray, medium grained, crystalline, thin-bedded limestone, usually broken and containing numerous calcite stringers. |
| | | Sentinell Quartzite | 100-100 0? | White to tan, sucrose quartzite. |
| PRE-CAMBRIAN | HARRISON SERIES | Upper? | 300-400<br>500-1,000 | Usually light gray, contorted and fractured limestone and marble. Massive, white to pinkish, somewhat schistose, vitreous quartzite. |
| | | Middle? | 400-600 | Fractured and contorted limestone (with mica and marble) interbedded with slates and quartzite. |

(Bibliography for Section e.)

1. Anderson, A.L., Geology and Mineral Resources of Eastern Cassia County, Idaho, Idaho Bur. Mines and Geol., Bull 14; 9, 1931, pp. 78
2. Peterson, Victor E., Economic Geology, vol. 37, 1942
3. Wardlaw, F. A., report in the form of a letter to a leasee of the Vipont Mine. Wardlaw was a former superintendent of the mine. This report is enclosed at the end of this section.
4. Foss, A. L. The Geology of the Vipont Mine, Unpublished undergraduate thesis, Univ. Minn., Dept. Geol., 1923

f. Reasons for expecting to find ore

General Reasons for Expecting to find Ore

The main reason I would expect to find ore is that the area has been extensively mineralized for at least a mile east and west with silver mineralization and south at the depths mined. Also there are silver showings over 2/3 of the property.

The Vipont Silver Mining Company didn't close down because they ran out of silver, but because of the sharp drop in the price of silver. Also, no one has been able to get a lease on the property longer than a year since 1942 although many have tried to get one longer.

Because of this, the prime exploration areas down dip from the outcrop and the Phelan level are still virgin. I believe if the price had remained the same, the Vipont Silver Mine Co. would have operated for many more years than it did.

I strongly feel this is one of the best potential silver producting areas in the state of Utah and believe that an extensive exploration program will prove this point.

Specific Reasons for Expecting to find Ore

1. I believe that the zone of secondary enrichment goes much further below the Phelan Tunnel. I would expect the permanent water table to be about at the 6650 foot level (Birch Creek bottom level).

Wardlaw suggests in his report that the main incline A-94 shaft be sunk to a lower level because of its central location. This was never done. I do not propose to do this because rehabilitation of the Phelan would be too expensive, plus I think this would be an awkward way to do exploration here.

The Spencer Brothers were in rich ore 200'+ below the north end of the Phelan tunnel when they either ran out or water was a serious problem. They lost some pumps due to the water problem. This points out the fact that good ore did, and perhaps still does, exists below the Phelan tunnel.

Another major point that indicates a high probability of the ore zone extending below the Phelan tunnel for a considerable distance is that last

summer Skoro Mining Co. hit ore back on the 6850 level in the Sentinell limestone. The property is 3000' to 4500' east of my property.

2. I strongly suspect that the major faults play an important role in the mineralization of the district. The intrusives, as Peterson suggests, may have come up through the fault channels. There are good indications that mineralization could be centralized along the faults, similar to the Burgin Tintic Utah area and the Philipsburg overthrust in Montana. As was mentioned before, good ore was found along the fault intersections with the limestone. I strongly suspect that there could be good mineralization at depth on the major fault limestone intersections. The faults would have made a good ore channel, plus their fractured nature could make channels for downward perculating water, thus causing a zone of secondary enrichment.

3. I believe that the area beyond the furthest extensions of the Phelan and A-level tunnels have excellent possibilities of crossing additional mineralized zones. The Vipont Silver Mining Co. was going to extend the Phelan so it connected with the Midway, but due to the drop in the silver price, they never did. Leasees did not extend the Phelan. Warlaw says, in his report (enclosed at the end of this section), "Still another chance and a good one, is to drive northwest on the Phelan level towards the Midway tunnel. In this tunnel, there was good ore. The streak was about three feet wide and assayed over 100 oz. I have never seen the stope, but from what I have heard, the chances of picking up the ore again look good enough. It will take 800 to 900' of drifting to get out there"

4. I think the area below the Phelan level of the above mentioned area (i.e. between the Phelan and Midway tunnels) holds a good possibility of enrichment at depth, same as #1.

5. The areas below the Lexington and Argenta workings hold excellent promise of being mineralized at depth. These mines or prospects were localized in the Phelan limestone. I believe, and so do many others, that the mineraling solutions ascended from depth, possibly below the Vipont limestone, up through various fractures and fissures in the Wardlaw shale and through the "vertical breaks" (as mentioned by Peterson) in the Phelan limestone, and ended up as small, spotty, high grade replacement deposits in the Phelan limestone. This is one reason for these deposits not being extensive in the Phelan limestone, plus the fact the Phelan is very massive and unfractured (poor host

rock). Drilling through the Phelan and Wardlaw to explore the Vipont limestone hold excellent possibilities for mineral discovery in or about the Vipont limestone at depth.

6. The Sentinell area southeast of the A-level tunnel portal has excellent possibilities, as mentioned by Wardlaw. Also, as previously mentioned, the Skoro Mining Co. is presently driving a tunnel toward a known shoot in the Sentinell limestone. I'm sure a few drill holes could be justified here because of the good possibility and relatively shallow depth.

7. The area has outcrops throughout the area that assay silver. The area has never been diamond drilled from the surface or underground. The only extensive exploration at depth was done by the Vipont Silver Mining Co. and this did just go barely below the Phelan level.

The relative inaccessability of the property, lease problems, and the silver price have made an area such as this difficult to mine since 1923.

Most mines are not found but are made is true here. I am sure that this property has many years of life left in it, providing that two things exist or prevail. That the silver price stays strong and that an extensive exploration program is carried on as outlined in this proposal. It is also important that a good exploration program accompany production after the OME stops.

g. Any reports, maps, etc. need not be returned.

December, 7th, 1924

REPORT ON VIPONT MINE BY F.A. WARDLAW JR. (FORMER SUPT.)

The purpose of this report is to give Mr. T. Lindsley, lessee, the advantage of the writer's experience at Vipont during four years of operation from 1919 to 1923, and to make such comments and recommendations as will serve in the operation of his lease.

## PROPERTY AND GEOLOGY

The property consists of some fifty patented mining claims located twenty miles due south from Oakley, Idaho, the railroad point; situated in Box Elder County, Utah, and owned by the Vipont Silver Mining Company.

The mineral deposit is a silver ore-values chiefly in argentite and native silver. The formation in which the ore-bodies occur is limestone; a bed about thirty feet in thickness dipping to the south west at about 20 degrees. A bed of black shale about two hundred feet thick overlies the limestone while a quartz-rhyolite underlies it. The rhyolite is approximately one hundred feet in thickness. Underlying this rhyolite is a very thick and extensive formation of metamorphosed limestone.

The ore bearing limestone above mentioned is cut up by numerous faults and slips striking usually north east and south west. The best ore zones have been found at the intersection of these faults with the limestone and in no particular horizon; some very good bunches of ore were found in the foot wall contact of the rhyolite; others just as good were under the shale hanging wall.

The particular characteristic of this ore is that it is very spotted in values as well as in quantity. It is impossible to judge this ore by inspection. Assaying is an absolute necessity. The streaks pitch in most any direction without warning indications, and at times it was difficult to define the outline of the streak, so closely did the hanging wall and footwall rock resemble that of the ore streak.

On the surface, the outcrop of the A-A orebody was a black silicious somewhat iron stained limestone. The outcrop for shoot "B" and "C" is an iron gossan, small but good what there is of it. You can get samples from either outcrop that will assay ten ounces silver.

## PRESENT SITUATION

Mr. Lindsley has a two year lease. He wishes to keep up a steady production during the term of the lease and, also, to so direct his development work that he can get some information as to the future of the property.

According to the terms of the lease, he must do two hundred feet of development work per month. Keeping up a fair production may prove difficult proposition until some results from development can be realized, because development work was stopped several months before the mine was shut down and the small stopes that are left cannot be relied upon to produce much. Development work should be started at once and pushed to meet this condition. There is practically no mill ore in sight; by that I mean ore that will assay ten oz. to thirty oz. There are about five places where ore can be extracted assaying from fifty to 250 ounces of this ore, none could be considered oxidized; some of it is semi-oxidized, however and difficult of treatment in the mill. It is impossible to say how much of this ore you will have.

The very unreliable spotty nature of Vipont ore as to size and grade makes estimations difficult, but we have found the ore streaks to be fairly persistent so I would think that those you now have might last for quite a while.

The mine below the Phelan Level is full of water. There is no more than thirty gallons per minute flowing from the inside workings on the Phelan level. The pumping problem is a simple one.

As for the physical condition of the mine, everything except the Phelan tunnel is in pretty fair shape. In the Phelan tunnel there is a stretch of about forty feet that should be retimbered in order to keep the tunnel open for drainage and ventilation. The stopes and drifts that you will want to use can be put in shape with little work.

The mine buildings and plant have suffered no appreciable deterioration. All the equipment except possible assay balances is there in storage. The balances were sent to Salt Lake. Ask the watchman, Mr. Wilson, as to location of such equipment as you need. He should know. Practically all the small stuff is in the mill power hourse. Air lines and track were undisturbed.

Your main work to get going will be to get hooked up to Idaho Power and I advise you to get that work under way before anything else.

The mill machinery was left in operating shape except the belts and some of the motors. All belts were removed from their pulleys and greased properly and properly marked. The motors were taken apart and windings painted with armature paint. The large transformers outside should be all right except for changing the oil and replacing bushings. The voltage regulators and accessories are in Oakley. Beds for the bunk house are in the Mill Power House.

## RECOMMENDATIONS

### GENERAL

In as much as there is very little ore in sight, I suggest for the present at least, that you do not go to the expense of starting up the mill and tramway. Confine your operations to the work of your fifteen men in sacking high grade ore and in carrying out a development program. In the process of opening up sacking ore which means ore assaying 150 oz. or better, you will produce some semi-oxidized ore of possibly 50 oz. grade which you cannot mill but which you could possibly ship direct to the smelter if you can get a favorable contract.

The mill ore you will get from this same source or through the results of development should be stockpiled. Don't stockpile outside as long as you have bin room or some storage underground. If your lease requires you to do a certain amount of sinking you will have to run the sinker pump to the water below, the Phelan level. I would advise you sinking the main incline instead of the P-39 Winze. It is more centrally located with respect to the downward rakes of the ore shoots as will be seen by observing the red lines and arrows.

The rest of the development should be confined to drifts and raises as indicated in blues on the tracing. In case you don't have to sink of course all the work can be done above the Phelan level.

Later if your showings of mill ore justify starting up the mill and tramway you can figure that it will cost you roughly $1500.00 to get the mill in operation and $500.00 to get the mill in good running shape.

### DETAILS

There are two reliable teamsters in Oakley, Bert Hale and Lewis Samuelson. Have them load light with groceries from the Oakley Warehouse (Chas. Elliot of Oakley has the key and could deliver them to you.) Have them break the road through via Birch Creek to the mine. They had better take about two men a piece with them with shovels. After they get there they can have beds, stoves, cooking utinsils, etc. from the mill up to the mine so you can get the camp in shape. Have electricians hook up transformers for the power service. There will be considerable work getting the transformers installed. Get everything done electrically so that you can get the small compressor in operation. An electrician named R.C. Wilde knows all about this installation and it would probably facilitate things to employ him. His present address is 536 West Lander Street, Pocatello, Idaho.

While this is being done, get the assay office in shape so that you can get the results of some sampling. Then sample-take a lot of samples-

you cannot take too many, and sample particularly the A-91, A-73, Sub R-23, Q-5, P-8 and P-41. (See Map)

I was told by my successor that these stopes had minable ore in them up to the time of the shut down. There should be sacking ore in A-91, Sub R-23 and Q-5. When you get air for your machines, put about eight men in the stopes and four men in the two drifts. The Sub N and Sub T (See Map) divide the men for stopes into four crews of two each and start in Sub R-23 and Q-5, P-41 and A-91. (See Map red X)

The two drifts crews would put in Sub N and Sub T as indicated in blue. See if you can't find a place to stow your waste in nearby stopes on these levels. On the map I have indicated chances for ore by red lines and I have shown the development which I recommend by blue lines. There is enough shown to last you a year at the rate of 200 feet per month.

You will note that I have indicated three distinct ore shoots, viz: A-A1, B and C. "A-A" was the mill ore shoot. The part A being lower grade by about five ounces than part A1. There was not much sacking ore in this shoot. The assay of all the ore would be approximately twenty ounces.

"B" was the rich shoot we developed in 1922 and 1923; a very considerable amount of 200 to 300 ounces sacking ore, with a by-product from the mining of it, of some 35 oz. semi-oxide direct shipping ore and some 20 oz. mill ore. We obtained these two products by screening the muck piles. The semi-oxide being decomposed and disintegrated broke up and went through a one inch screen.

"C" is a shoot which is imaginary and which I have sufficient hopes for to justify the drifting and raising as indicated. A-91 is going down promisingly and P-41 is likewise working upwards towards A-91--less promising by worth following nevertheless. In the bottom of P-41, I understand there is a face of sacking ore exposed about ten inches wide and eight feet long assaying 300 to 400 ounces. This face is now under water.

Another possible shoot is the Sentinel. Good ore was stoped here. We got out about 20 tons of 100 oz. The best chance to pick up this possibility is by a crosscut south east from the A tunnel to go under the rhyolite knob north east of the two log bunk houses. This cross cut should not have to be driven over 500 ft. to pick up the extension of the Sentinel Limestone.

Still another chance and a good one is to drive north west on the Phelan level towards the Midway tunnel. In this tunnel, there was good ore. The streak was about three feet wide and assayed over 100 oz. I have never seen the stope but from what I have heard the chances of picking up the ore again look good enough. It will take 800 to 900 ft. of drifting to get out there so I would not advise doing this work until other work as indicated had been accomplished.

In closing these remarks I want to add again that close sampling and assaying is absolutely essential and should not be neglected.

Very truly yours,

SECTION
4

## 4. ACCESSIBILITY OF PROPERTY

a. Name and address of person who will meet the OME representative:

Tom F. Miller phone: 486-8957
2112 Westminster Avenue
Salt Lake City, Utah

Direction to Property

The Vipont Mine turnoff is located 19 miles south of Oakley, Idaho. From the mine turnoff, which is at the mouth of Birch Creek, proceed 7 miles southeast up Birch Creek. There is a sign at the mine turnoff marked Skoro Mine. (See attached sketch map.)

Accessibility of the Property

The first 19 miles of county road is in pretty good shape and can be traveled by car, but the last seven miles of road to the mine has some rough spots on it. It is also a bad road when wet. The road as a whole is very poorly drained and needs some work done on it. Skoro Mining Co. has done some work on the road during the last year or so.

b. Shipping and Supply Points

Shipping Point

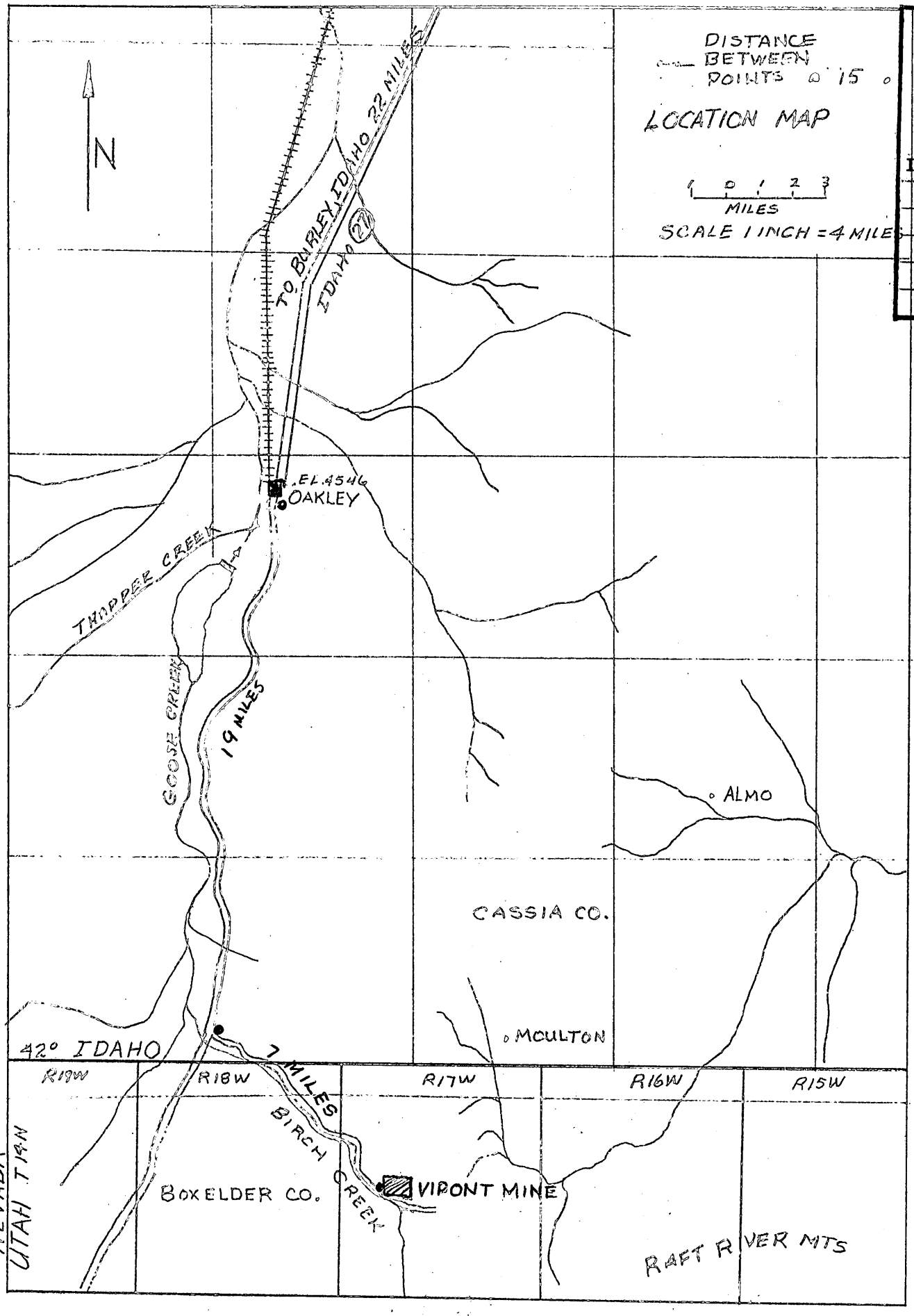
Oakley, Idaho: There is a railroad to Oakley which is in service. From Oakley the materials would have to be trucked into the mine, which is 26 miles south. (See attached sketch map.)

Supply Points

Salt Lake City, Utah: Distance 248 miles to the mine via Burley. There are other ways from Salt Lake to the mine that are shorter, but they are also rougher.

Boise, Idaho: Distance 216 miles to the mine.

Burley, Idaho: The main lumber supply point is 48 miles from the mine.

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SECTION 5

## 5. EXPLORATION WORK

a. In order to do a first rate exploration program on this property, I feel that the exploration must involve four major areas of mining exploration. They are as follows:

1. Tunneling to the Vipont limestone (major ore host rock and vein) and then drifting in the limestone beneath the Wardlaw shale.

2. Underground diamond core drilling from the new tunnel and drift to explore the Vipont limestone, lower part of the Wardlaw shale, rhyolite porphry, and Sentinel limestone in detail.

3. Surface diamond core drilling in some of the areas suggested in (3f.).

4. The exploration geology necessary to compile detailed underground and surface maps and to give geological interpretation to the project.

### Tunnel and Drift

development Drive a new tunnel in at the 6900' level to intersect the Vipont limestone and then drift and diamond drill to intersect the ore. The new tunnel would be driven 1725' N. 40° 30" E. from the portal to a point 75' to 90' past the Wardlaw shale-Vipont limestone contact. From this point an exploratory drift would be run in the Vipont limestone for 975' approximately due north and about 30' to 40' under the shale-limestone contact. Drill stations would be cut every 100' in the drift for underground diamond drilling. The reasons for running the drift in the limestone is that there would be a good possibility of intersecting ore bodies and that the limestone would be a much firmer rock to drift in than would be the shale-limestone contact.

### Tunnel Location

The new tunnel will be located 910' S. 78° W. from the center of the Phelan Tunnel portal. (Ref. general map and X-section C-C' for tunnel plan.) Four drill stations will be cut on the new tunnel according to

the plan in X-section C-C'. The first one will be 700' from the mouth of the portal and the next three will be spaced 250' apart. (Ref. sketch # 4 for diamond drill cut out stations.)

Dimensions of the tunnel and drift will be 7' wide at the bottom and 8' high inside timber, or 7' x 8'. (Ref. attached sketch #1 for dimension plan.)

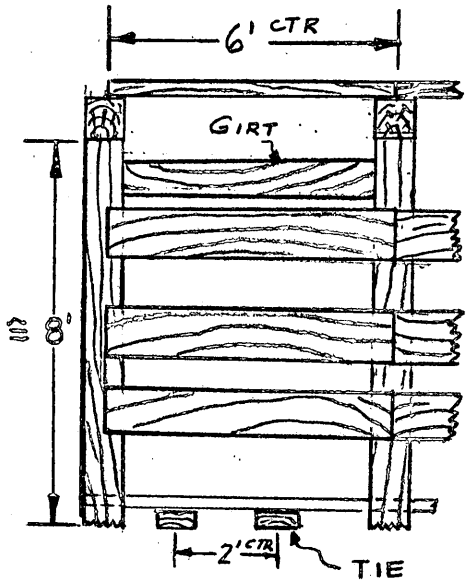
## Justification

As was mentioned in (3f.), the prime exploration target is the area down dip from the known ore bodies in the Phelan Tunnel. Due to the fact that the past Vipont ore bodies have occured as irregular patchy replacements in the Vipont limestone, I feel that to drift on the ore and drill extensively would be a better method of intersecting this type of an ore body than an extensive surface drilling program in this area. To do extensive surface drilling in this area for detailed exploration would require holes at least 75' to 100' apart and at depths ranging from 1050' maximum to a minimum of 600'. Surface drilling may prove to be a cheaper approach here, but also would not give the results that the underground exploratory drifting and drilling would. Also underground drilling will give, as a result, a three dimensional test of mineralization.

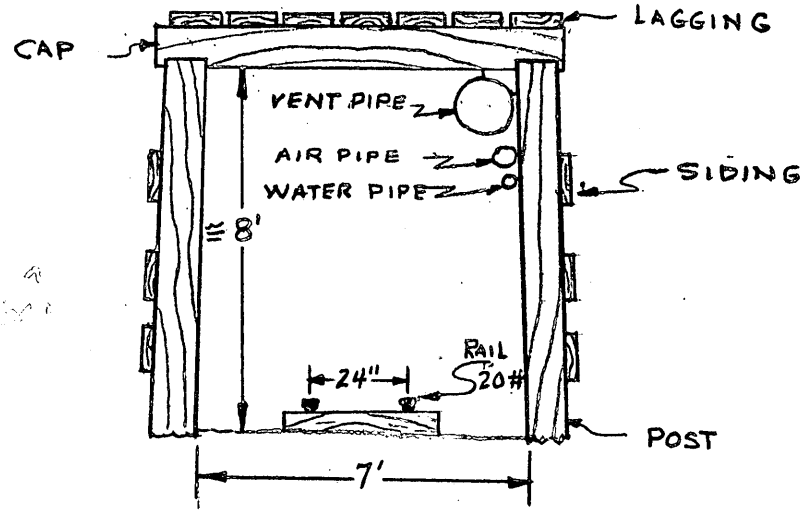
## Underground Drilling

A total of 9500' is planned. Purpose is to explore and test the Vipont limestone, lower Wardlaw shale, rhyolite porphyry, and Sentinel limestone for silver mineralization. The general plan for underground drilling is to drill at least four key holes in the tunnel as specified in X-section C-C'. However, if mineralization is found in a hole, more holes may be drilled in the immediate vicinity to explore future mineralization.

The first hole will be located 700' from the mouth of the portal and the next three will be spaced 250' apart from the first hole.




SIDE VIEW




END VIEW

SPECIFICATIONS: 7'x 8'

| | |
|---|---|
| POSTS & CAPS: | 8"x8"x8' |
| LAGGING: | 3"x12"x6' |
| SIDING: | 2"x12"x6' |
| TIES | 5" x 8"x39" |
| GIRT | 5" x 8"x5'4" |
| VENT PIPE | 14" |
| AIR PIPE | 4" |
| WATER PIPE | 1" |
| RAIL | 20# |

SKETCH NO. 1

TUNNEL-DRIFT TIMBER PLAN

| Hole | Depth | Angle |
|---|---|---|
| Hole #1 | 510' ± | 70° to 90° |
| Hole #2 | 420' ± | 70° to 90° |
| Hole #3 | 340' ± | 70° to 90° |
| Hole #4 | 250' ± | 70° to 90° |
| | 1520' ± approximately | |

A few short holes (100' or less) may be drilled at a 70° angle from the tunnel in the area from hole #4 to the start of the drift, depending upon the data obtained in hole #4. The five foot length drill rod will be used for these holes, thereby eliminating a large cut out.

At the end of the tunnel and start of the drift, approximately five holes will be drilled, as delineated in X-section C-C'. There will also be one or two flat holes drilled off to the south and southeast to test the Vipont fault for mineralization; also to test the Vipont limestone.

Total footage for this drill site, 600' to 800'. (See diamond drill plan sketches # 2 and 3.)

There will be nine more underground drill sites spaced at approximately 100' intervals. (Ref. sketch #4 for drill sites.) It is expected that there will be from 400' to 900' of drilling at each drill, depending upon the results. At the end of the drift, one or two long, relatively flat holes will be drilled to explore for ore beyond the end of the drift. (See sketches #3 and 4 for underground diamond drill hole patterns.)

There may be a few short holes drilled between the 100' drill sites. These will be drilled with the five foot rods in order to eliminate a large cut out.

## Surface Drilling

A total of 10,400' is planned. The objective will be to drill as many shallow holes as is possible to intersect the Vipont limestone in the areas of the Lexington-Argenta workings, the area from the Cassius outcrop

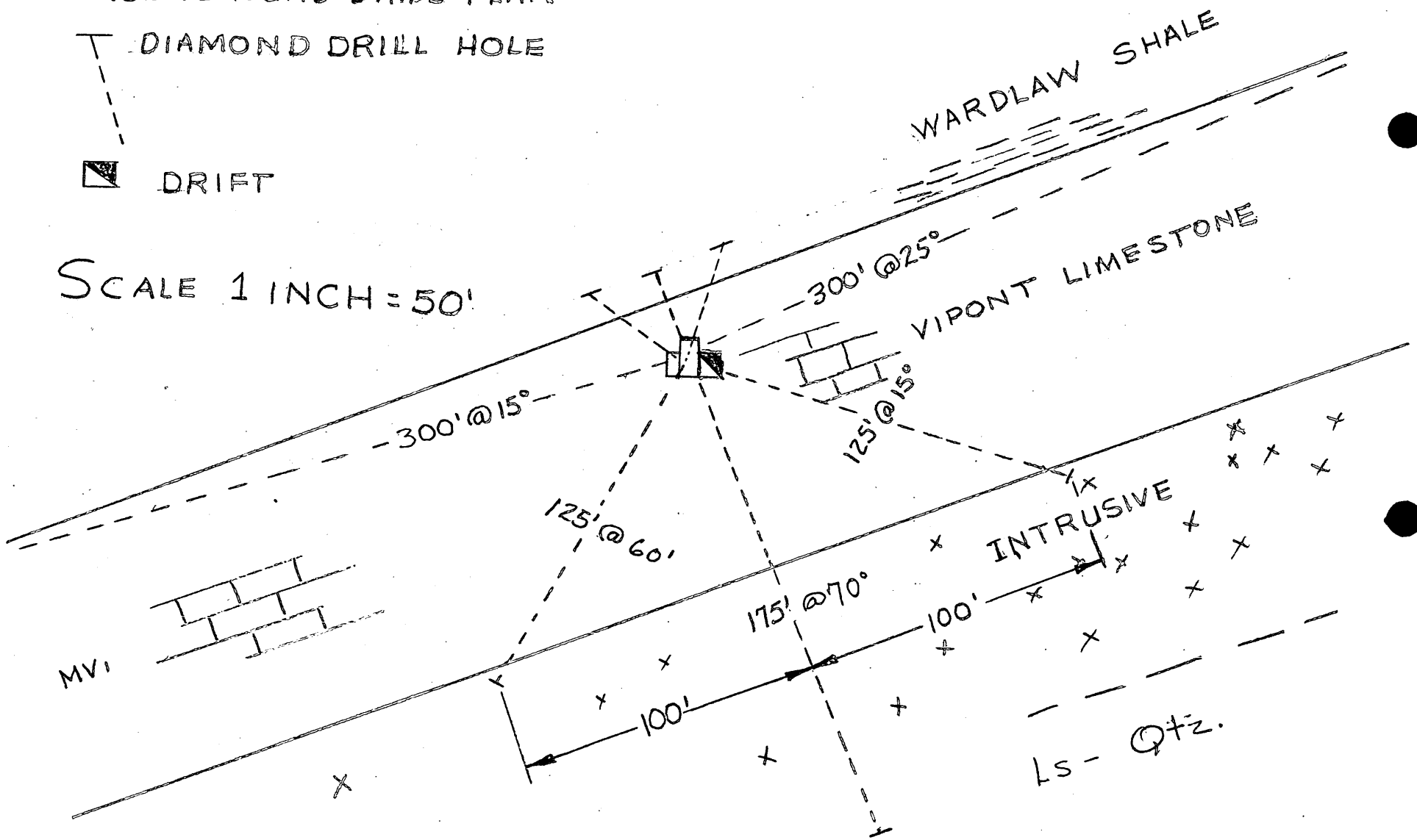
# SKETCH NO. 2

UNDERGROUND DRILL PLAN

DIAMOND DRILL HOLE

DRIFT

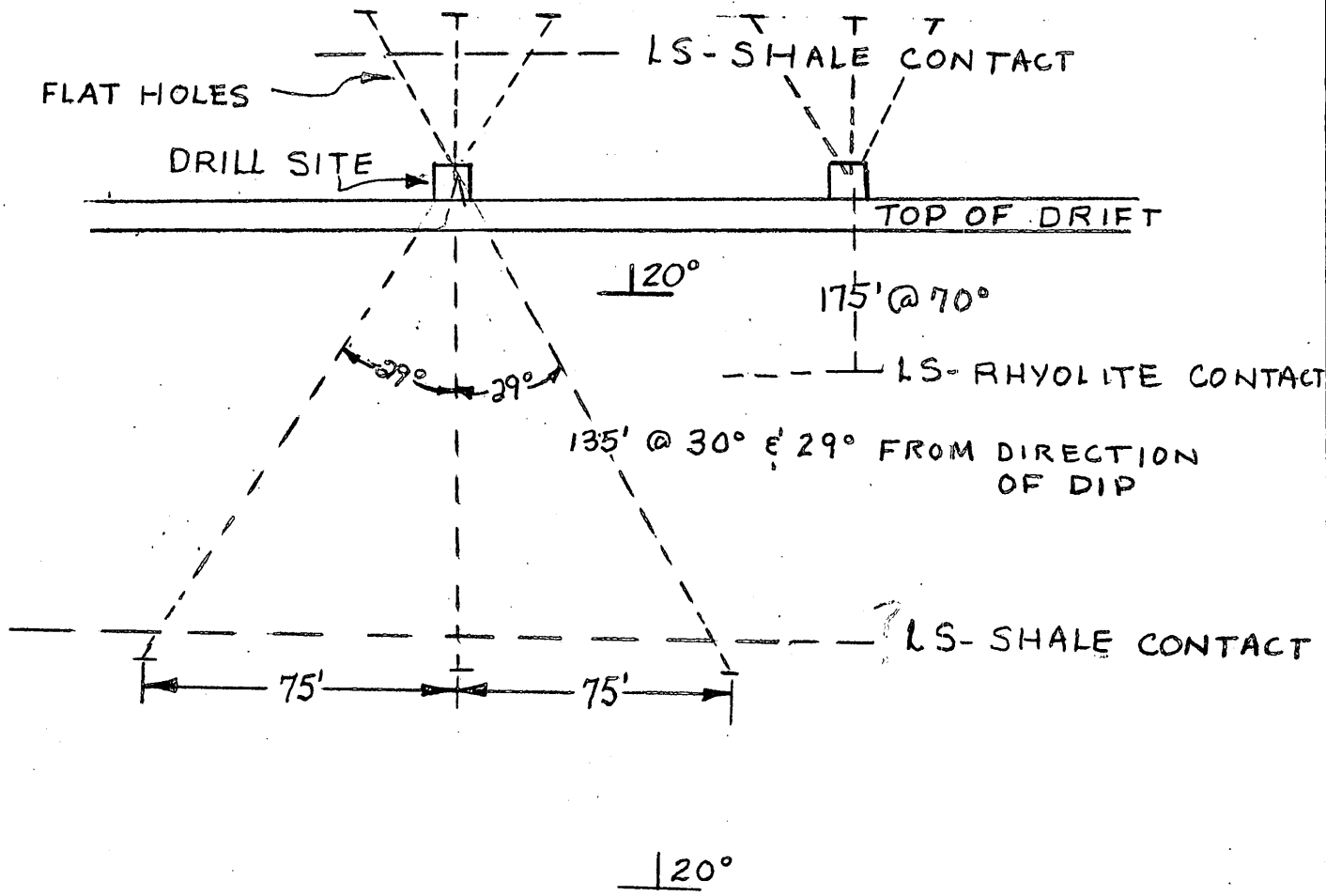
SCALE 1 INCH = 50'

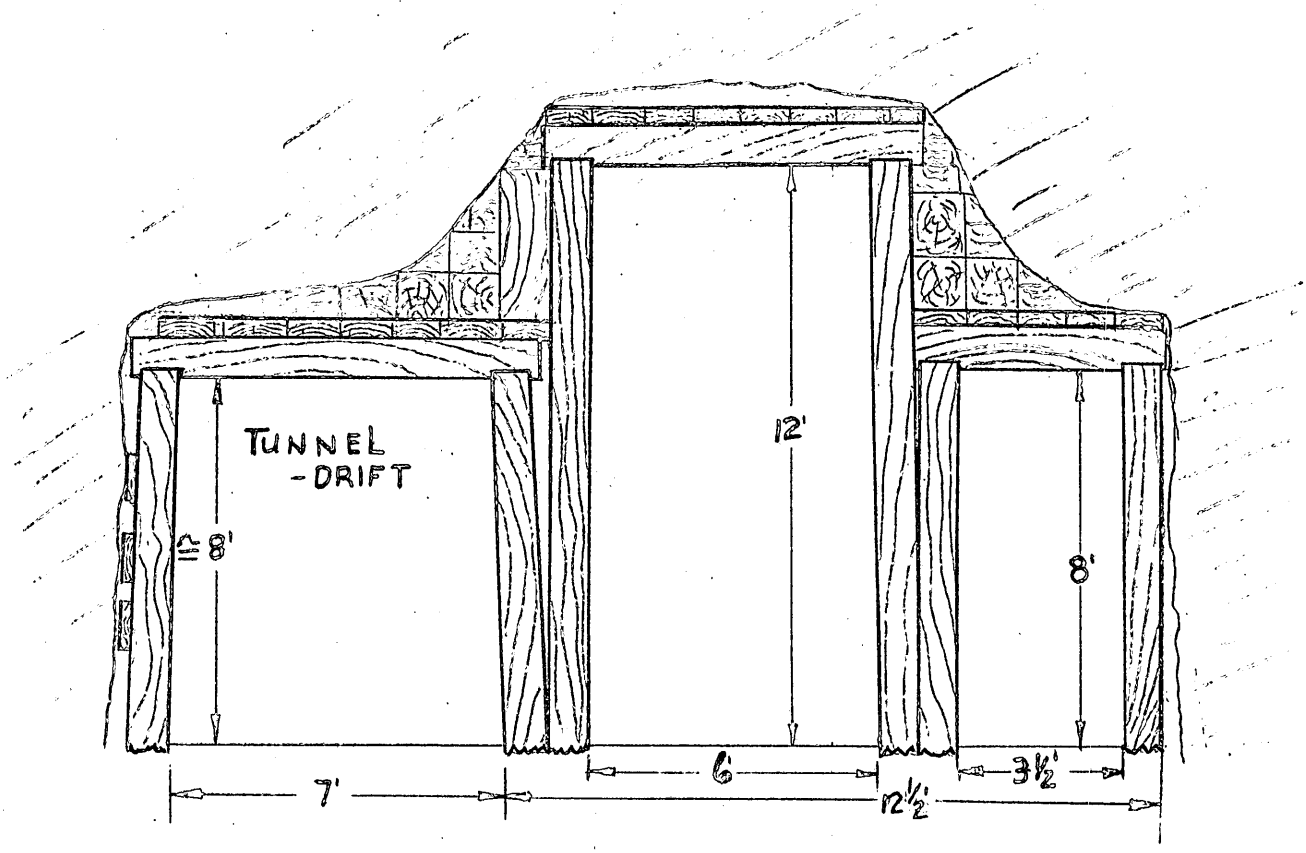


# SKETCH NO. 3

UNDERGROUND DRILL PLAN

DIAMOND DRILL HOLE






UNDERGROUND DIAMOND DRILL CUTOUT STATION

LENGTH 12½'
WIDTH 6'
HEIGTH 12' & 8'

SKETCH NO. 4

to the furthest northwest extensions of the A-level Tunnel and Phelan Tunnel, and the Sentinel area northeast, east, and southeast of the A-level portal. A few other exploration holes will be drilled in other than the areas listed above.

Note: All surface diamond drill holes are located and plotted on the large general map of the Vipont Mine, except those to be determined after drilling results are known.

## Lexington-Argenta Workings

Objective: Drill at least four deep holes as shown, and located on the general map in and about the Lexington-Argenta workings to test the Phelan limestone and the Vipont limestone and formations below the Vipont limestone for silver mineralization. These holes could be drilled at 70° to cut down on the distance; however other factors may preclude this angle.

| Diamond Drill Hole | Depth | Location |
|---|---|---|
| S.D.D. # 1 | 250' ± | 1400' N. 1° 30" W. of M.M. # 1 |
| S.D.D. # 2 | 200' ± | 1030' N. 12° 30" E. of M.M. # 1 |
| S.D.D. # 3 | 500' ± | 860' S. 68° W. of M.M. # 2 |
| S.D.D. # 4 | 275' | 1460' N. 36° E. of M.M. # 1 |

If conclusive mineralization is found in this area, a few more holes will be drilled to further explore and test for mineralization.

Two or three shallow holes should be drilled in and about this area to test further mineralization in the Phelan limestone.

## Cassius Outcrop to Northwest End of A-Level and Phelan Tunnel

The objective will be to drill as many shallow exploration holes as possible and a few deep ones to test the Vipont limestone, lower Wardlaw shale, and formation below the Vipont limestone for silver mineralization.

Fourteen holes have been plotted at various locations in this area. The holes are listed as follows, with depth and location of each (ref. map for location):

| Diamond Drill Hole | Depth | Location |
|---|---|---|
| S.D.D. #18 | 100' ± | 780' N. 6° E. of M.M. # 2 |
| S.D.D. # 5 | 100' ± | 925' N. 40° E. of M.M. # 2 |
| S.D.D. # 6 | 90' ± | 1050' N. 46° E. of M.M. # 2 |
| S.D.D. # 17 | 70' ± | 1470' N. 49° E. of M.M. # 2 |
| S.D.D. # 7 | 230' ± | 885' N. 70° E. of M.M. # 2 |
| S.D.D. # 8 | 90' ± | 1290' N. 65° 30" E. of M.M. # 2 |
| S.D.D. # 9 (ref. X-section B-B') | 75' ± | 1775' N. 76° E. of M.M. # 2 |
| S.D.D. # 10 | 250' | 1845' N. 89° E. of M.M. # 2 |
| S.D.D. # 11 | 450' ± | 1595' N. 12° E. of M.M. # 2 |
| S.D.D. # 12 | 325' | 2050' N. 6° E. of M.M. # 2 |
| S.D.D. # 13 | 525' | 2335' N. 14° 30" E. of M.M. # 2 |
| S.D.D. # 14 | 80' ± | 2945' N. 1° 30" E. of M.M. # 2 |
| S.D.D. # 15 | 100' ± | 3350' N. 4° E. of M.M. # 2 |
| S.D.D. # 16 | 100' ± | 3350' N. 40° E. of M.M. # 2 |

## Sentinel Workings and Immediate Surrounding Area

Objective: Drill ten holes to test the Sentinel limestone-quartzite at depth for silver mineralization. Many of these holes will be on or near old workings where the Vipont Silver Mining Co. did some shallow exploration work and took out some high grade silver ore. The holes will be numbered and located as follows:

| Diamond Drill Hole | Depth | Location |
|---|---|---|
| S.D.D. # 19 | 250' ± | 445' S. 47° E. of A-level portal |
| S.D.D. # 20 | 75' | 1295' S. 71° E. of A-level portal |
| S.D.D. # 21 | 90' | 1125' S. 82° E. of A-level portal |
| S.D.D. # 22 | 75' ± | 1355' N. 89° E. of A-level portal |
| S.D.D. # 23 | 75' ± | 1340' N. 68° E. of A-level portal |

| Diamond Drill Hole | Depth | Location |
|---|---|---|
| S.D.D. # 24 | 200' | 1000' N. 70° 30" E. of A-level portal |
| S.D.D. # 25 | 250' | 1050' N. 42° E. of A-level portal |
| S.D.D. # 26 | 225' | 1420' N. 24° E. of A-level portal |
| S.D.D. # 27 | 200' | 790' N. 88° 30" E. of A-level portal |
| S.D.D. # 28 | 60' | 1450' N. 80° E. of A-level portal |
| S.D.D. # 29 | 225' | 455' N. 58° E. of A-level portal |

## Miscellaneous Holes

These holes will be drilled to close the exploration gaps in the area; although only a few can be drilled, it is felt that some good data may be obtained. Objective will be listed under each hole.

Diamond Drill Hole No. S.D.D. # 30 Objective will be to drill through the Wardlaw shale to test the Vipont limestone, porphyry, and Sentinel limestone for silver mineralization. Depth, 350'; location, 610' S. 85° 30" W. of A-level portal.

Diamond Drill Hole No. S.D.D. # 31 Objective will be to drill through the Phelan limestone and Wardlaw shale to test the Vipont limestone for silver mineralization. Depth, 300'; location, 890' S. 87° E. of the Phelan portal.

Diamond Drill Hole No. S.D.D. # 32 Objective will be to drill through the Phelan limestone and Wardlaw shale to test the Vipont limestone, porphyry and Sentinel limestone at the 6500' structure contour level. Depth, 650'; location, 1075' S. 75° 30" W. of Phelan portal. (Ref. X-section C-C')

Diamond Drill Hole No. S.D.D. # 33 Objective will be to test the Phelan limestone and to intersect the Midway fault at the Wardlaw shale-Vipont limestone contact and then drill through the Vipont limestone. Depth, 500' ±; location, 1225' S. 12° E. of M.M. # 2.

Diamond Drill Hole No. S.D.D. # 34 Objective will be to drill through the Wardlaw shale and test the Vipont limestone at the 6800' contour level for silver mineralization. Depth, 550' ±; location, 1090' S. 33° E. of M.M. # 2. (ref. X-section B-B')

Diamond Drill Hole No. S.D.D. # 35 Objective will be to drill through the Wardlaw shale and test the Vipont limestone at the 6900' contour level for silver mineralization. Depth, 450' ±; location, 1225' S. 53° 30" E. of M.M. # 2.

## Geology

The geological effort will consist of the following functions:

1. Making a detailed accurate surface map of the area and the surrounding area as may be related to local structure and mineralization. Plotting outcrops, strikes and dips, old mine workings, faults and joints, diamond drill holes, assay data, and other appropriate geological data that pertains to the surface. The alidade and planetable method will be used for the surface mapping.

2. Underground map of the new tunnel and drift, and old workings to the extent they are accessible. A transit and Brunton compass will be used to do the underground mapping.

3 Drawing X-sections after diamond drill and drifting information is obtained and applying geological interpretations and analizations to them.

4. Diamond drill core logging. Log each core to show bed thickness, rock type, texture, color, compaction, and assay data. Also the structural interpretation and evaluation of each core. Correlate this data with other existing data.

5. Making an assay map. Plot all new assay data and existing data where appropriate.

b. There will not be a need for a major access road to be built; however the 7-mile stretch of road from the Cassia County, Goose Creek road turnoff (ref. sketch under 4.a) to the mine will require some cat work to smooth it up and drain it better. Also there will be a need for a few short roads to some of the surface diamond drill sites. Road work and drill sites are covered in 7. Miscellaneous.

c. I would like to start July 1, 1965.
If I were to get acceptance then, it would take me two to three weeks to get the necessary cat work done, buy equipment, and to mobilize and set up the equipment for the tunneling and surface diamond drilling.

After the work started, it would take 25½ months to complete all phases of the work.

## Daily and Monthly Averages

~~Daily Averages~~

### Tunnel and Drift

5 2/3' per 8 hour day x 21 days in a month would = 119' per month

119 ÷ 2700 = 22.7 months

*However, for a period of about 1½ months, I intend to double shift the tunnel while the diamond drilling is shut down. With double shifting for 1½ months, the tunnel and drift would take 21.2 months to complete. (See attached monthly progress plan)

### Underground Drill Sites

It will take approximately 1½ days to make a diamond drill cut out station or 14 stations x 1.5 days = 21 days or one month total time.

### Surface Diamond Drilling

It will take a total of 12 months to do 10,400' of surface diamond

drilling. Surface drilling is computed as follows:

Hourly rate = 3.5' an hour  Daily average = 28' an 8 hour shift
Monthly average = 588' a month

7000' will be drilled during a 5-day-a-week, 8 hr. shift (straight time) or 7000' ÷ 28' a day = 250 days ÷ 21 days a month = 12 months

3400' will be drilled on overtime to take advantage of the outside drilling weather. The overtime will be worked as follows: 6-day week x 10 hours a day.

This would amount to 81 hours of overtime a month x 12 months = 972 hours ÷ 8 hours a shift = 121 more shifts x 28' a shift = approximately 3400'

Daily average plus overtime would = 35' a day.

Monthly average plus overtime would = 35' a day x 25 = 875' a month. (See attached monthly progress plan)
*Note: This could also be computed as 2972 total hours x 3.5' an hour = 10,402' total.

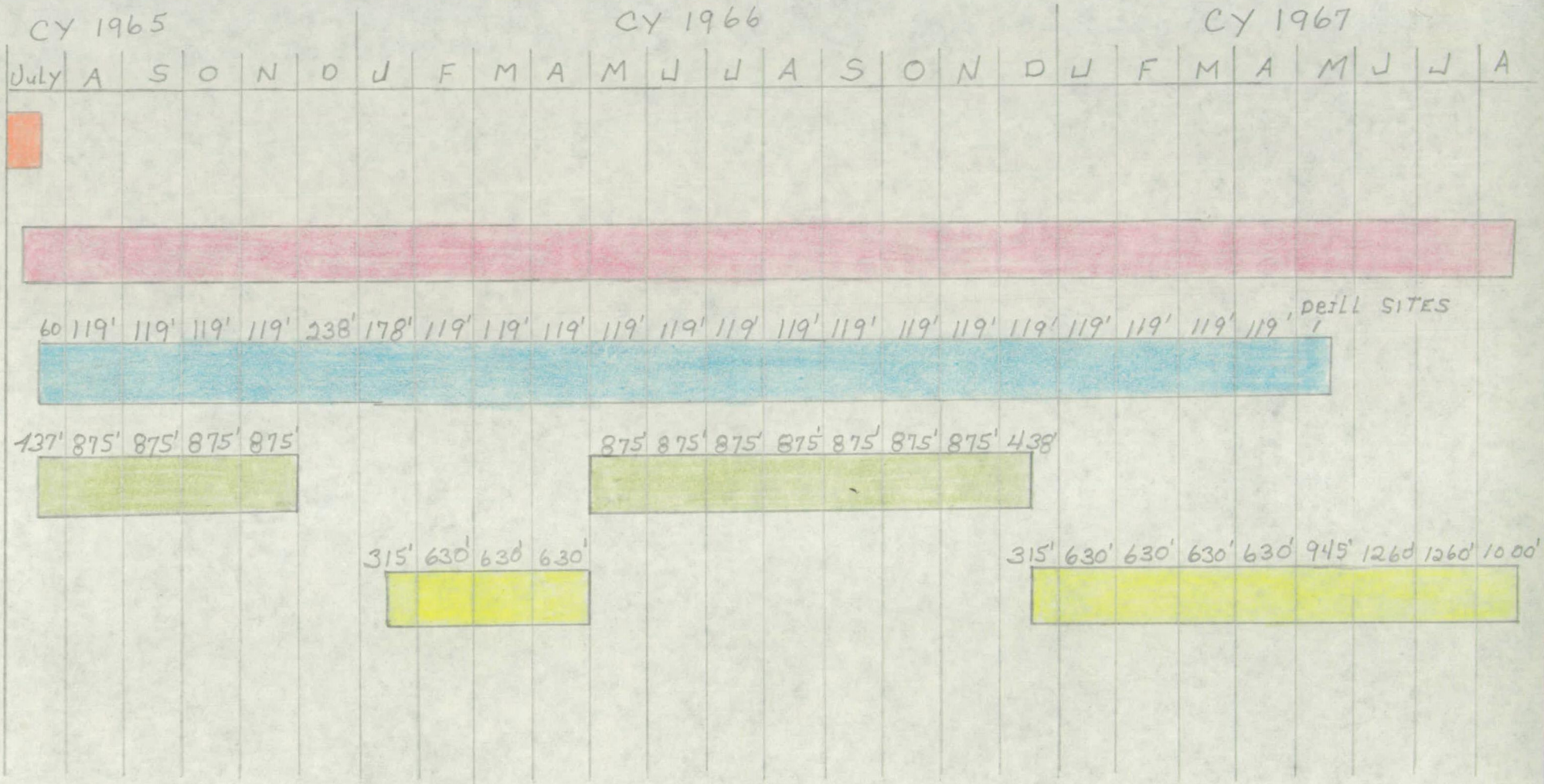
Underground Diamond Drilling

It will take approximately 12 months to complete 9,500' of underground core drilling:

Underground drilling is computed as follows:

Hourly rate = 3.75' per hour
Daily rate = 30' per day
Monthly rate = 630' per month

Approximately 5355' of underground drilling will be completed by one crew; however when the drifting is completed, the drilling will be double shifted. The monthly average would then be 1260' per month. (See attached monthly progress plan.)




MOBILIZATION

GEOLOGY & SUPERVISION

TUNNEL-DRIFT & UNDERGROUND DRILL SITES

SURFACE DIAMOND DRILLING

UNDERGROUND DIAMOND DRILLING

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# MONTHLY PROGRESS PLAN

# MONTHLY PROGRESS PLAN

SECTION
6

## 6. EXPERIENCE

I, Thomas F. Miller, will conduct and do the geological and engineering work and supervise this exploration project.

### Background and Experience

Background

I have a B.S. degree in geology from Brigham Young University. Since graduating, I have completed courses in "Engineering Statistics" and"Techniques of Value Analysis and Engineering."

I grew up in a mining camp in Montana and became familiar with many of the mining ways and techniques while I was still young.

My dad has worked in the Montana mines in Virginia City (Au & Ag), Silver Star (Au & Ag), Butte (Cu, Au, Ag, Mn, Pb, and Zn), and Garrison (phosphate) for 32 years or more. I have learned a great deal about mining from him. My first love and greatest work interest has always been mine exploration and mining.

### Geological Experience

Mining Geologist (18 months)

I worked as a mining geologist for a total of 18 months with Montana Phosphate Products Co., located at Garrison, Montana. Head geologist was Dr. L. V. Bell.

My experience as a mining geologist included the following with the time of each function listed:

1. Percussion drill hole rock chip sampling and hole logging. Helping to locate these holes and making a detailed surface map of this area. Purpose was to locate and outline a potential strip mine. Time spent on project, 4 months, summer of 1958.

2. Geologic mapping of the Maxville, Douglas Creek phosphate beds (near Philipsburg, Montana) for future mining. Worked with another geologist on this project. This included mapping an area approximately 10 sq.

miles with a relative amount of detail, operating an alidade and plane table, drawing X-sections, ore sampling, photo interpretation, calculating ore reserves and a certain amount of mining engineering. (Montana Phosphate has since then put in a 5 million dollar mill, plus more in mining equipment on this property. This was done 1½ years ago.) Time spent on the project 7 months, summer and fall of 1958.

3. Detailed surface mapping of an extremely faulted area (Luke Mine, Avon, Montana), locating diamond drill holes and logging the cores of these holes. Making ore reserve estimates.
   Time spent on project 4 months, summer of 1959.

4. Underground Geology, included detailed mapping of drifts, stopes, raises, and cross cuts. Locating new ore bodies, ore sampling, and a certain amount of mining engineering. Time spent on project 1 month, plus.

5. Did some surveying work in the mining engineering department. 1 month

## Mining Experience (1½ years)

I worked as a contract miner for Montana Phosphate Products Co. and Rhelyea Phosphate Co. Functions included drilling, loading and blasting ore in raises, drifts, and stopes. The stopes were from 50' to 100' wide and usually ran 300' plus in length. The ore dipped from 20° to 45°. The contracts were set up so that we were paid so much a ton and or Cu ft.$^3$. Time spent (15 months)

Other functions that I performed in the mine while not contracting were shoot building, track laying, tramming, and various phases of shaft work.

## Engineering Experience (3 years 11 months)

Hercules Powder Company, Bacchus, Utah--worked in various fields of engineering while at Hercules Powder Co. Most of the engineering experience was gained in the process and project engineering departments. I am presently working as a proposal coordinator in the project office.

Process Engineering ($1\frac{1}{2}$ years)

1. Helped proof processes and procedures.
2. Wrote many engineering reports.
3. Worked as an area engineer for several months in two major areas. Helped train chemical and mechanical engineers in these functions and responsibilities.
4. Made process evaluation studies.
5. Wrote rework and repair procedures.
6. Made some engineering presentations to the manager.

Project Engineering (2 years 5 months)
(Technical Planning and Proposal Coordinator)

1. Assisted in contract closeouts.
2. Wrote technical plans for many functions.
3. Helped do the development work and planning for a certain motor.
4. Wrote advanced plans for future programs.
5. Hercules Powder Co. project chairman of the rework and inspection of fleet return motors.
6. Chief project engineer for the spaces logistic program.
7. Writing engineering proposals for Lockheed and Navy.
8. Project representative for tooling and material excess screening.
9. I have been the head of many engineering projects and teams.

## SUMMARY FOR SECTION 7

| Item | Cost |
|---|---|
| Tunneling and Drifting | $160,900 |
| Surface Core Drilling | 69,088 |
| Underground Core Drilling | 59,742 |
| Underground Drill Sites | 7,628 |
| Geology | 24,900 |
| Miscellaneous | 5,574 |
| TOTAL PROJECT COST -------- | $327,832 |

## TUNNELING-DRIFTING

6
7' x 8' tunnel and drift (timbered) 2700' total length

Estimated average 5 2/3' advance per shift

2700' ÷ 5 2/3' = 476 shifts x 8 hours a shift = 3808 hours total

It will take $2\frac{1}{4}$ hours of supervision for each man shift worked or $2\frac{1}{4}$ hours x 476 man shifts = 1071 hours.

### SUMMARY

| | | |
|---|---|---|
| Sec. (a) | --------None---------- | $------ |
| Sec. (b) | Personal Services | 57,534 |
| Sec. (c) | Materials and Supplies | 73,920 |
| Sec. (d) | Equipment | 16,007 |
| Sec. (e) | --------None---------- | ------ |
| Sec. (f) | --------None---------- | ------ |
| Sec. (g) | Miscellaneous | 13,439 |
| | TOTAL COST ---------- | $160,900 |

*Price per foot (timbered)

$160,900 ÷ 2700' = $59.59 per foot ?

Price per foot (no timber)

$134,154 ÷ 2700' = $49.69 per foot ?

*According to past records, most of the tunnels and drifts were timbered. Therefore, it is anticipated that most or all of it will require the timber; however, for those portions not requiring timber, the rate per foot would be $49.69.

(a)

None

(b) PERSONAL SERVICES

| | No. Required | Rate per Hour | Total Hours | Total Cost |
|---|---|---|---|---|
| Supervisor | 1 | $7.00 | 1071 | $7,497 |
| Engineer (covered in supervision above) | | | | |
| Miners | 2 | 5.67 (no timber) | | |
| | | .90 (extra for timber) | | |
| | | 6.57 | 7616 | 50,037 |
| Total Personal Services Less P.T. & I. | | | | $57,534 |

The above services are available providing I can get started before school starts so Jim and Rich will not have to shift their children.

Jim Miller (brother) has had 11 years of mining experience as a drift and stope contractor, student miner instructor, and shift boss.

Rich Miller (brother) has had 6 years of mining experience as a drift and stope contractor.

The above hourly rate is equivelent to the pay they receive now in Montana.

Period of employment for the miners will be approximately 22.5 months. This is based on a 21 day, 168 hour month.

TOTAL FOR SECTION (b) $57,534

## (c) OPERATING MATERIALS AND SUPPLIES

| Item | Description | Unit | Qty | Price/each | Total Cost |
|---|---|---|---|---|---|
| Rock bits | 1 3/8" Liddicoat Throw away | ea. | 952 | $ 4.95 | $4712.00 |
| Drill steel | 7/8" Hex x 4¼" 72" U.C. tapered | ea. | 476 | 19.41 | 9239.00 |
| Rail | 20# Mine rail 20' lengths | ton | 18.7 ton | 165.00 | 3086.00 |
| Track spikes | 3½" x ½" | 100 lbs | 250 lbs | 23.50 | 58.75 |
| Track splices | 16 1/8" x 7/16" | pair | 296 prs | 1.01 | 299.00 |
| Track bolts | 2" x ½" | 100 lbs | 100 lbs | 37.80 | 37.80 |
| Pipe | 4" Air pipe Vimet-talic with couplings | foot | 2775 | 1.45 | 4024.00 |
| Pipe tees | 4" air outlet for diamond drill | ea. | 10 | 20.75 | 207.50 |
| Valves | 4" air control flange | ea. | 3 | 70.00 | 210.00 |
| Reducer | 4" reduce to air hose | ea. | 2 | 4.15 | 8.30 |
| Pipe | 1" water with couplings | foot | 2775 | .40 | 1110.00 |
| Valves | 1" water outlet for diamond drill | ea. | 4 | 3.73 | 14.92 |
| Pipe tees | 1" water outlet for diamond drill | ea. | 10 | .49 | 4.90 |
| Vent pipe | 14" vent tube for air ventilation | foot | 2750 | 1.09 | 2998.00 |
| Vent pipe couplings | 14" couplings for vent tube | ea. | 138 | 1.57 | 216.66 |
| Dynamite | 40% gelatin extra 7/8 dia. | 100 #box | 410 boxes | 30.22 | 12,390.00 |
| Caps | fuse type non-electric | 100/box | 154 boxes | 3.00 | 462.00 |

| Item | Description | Unit | Qty | Price/ea. | Total Cost |
|---|---|---|---|---|---|
| Fuse | cap ignition | foot | 188,000' | 2¢/' | $3760.00 |
| Spitter cord | fuse ignition | foot | 34,000' | 1.6¢/' | 544.00 |
| Connectors | for spitter cord | 100/box | 147 boxes | $2.10 | 308.70 |
| Cap pliers | pinching caps | ea. | 1 | 5.25 | 5.25 |
| Timber | posts & cars 8" x 8" x 8' Douglas Fir | bd/ft | 57,000' | $110/M | 6270.00 |
| | Lagging over caps 3" x 12" x 6' Douglas Fir | bd/ft | 65,000' | $110/M | 7150.00 |
| | Sides of Posts 2" x 12" x 6' Douglas Fir | bd/ft | 36,000' | $110/M | 3960.00 |
| | Girts-between posts for support 4" x 8" x 5½' Douglas Fir | bd/ft | 7,600' | $110/M | 836.00 |
| | Blocking for timber sets | bd/ft | 9,700' | $110/M | 1067.00 |
| Ties | 5" x 8" x 39" Douglas Fir | bd/ft | 11,200' | $110/M | 1232.00 |
| Wedges | | bd/ft | 1,000' | $86.40/M | 86.40 |
| Hammer | 10 lb. sledge 36" handle | ea. | 1 | 6.52 | 6.52 |
| Hammer | 4 lb. sledge 16" handle | ea. | 1 | 3.62 | 3.62 |
| Axes | singe bit miners 5 lb. head | ea. | 4 | 10.16 | 40.64 |
| Picks | Miners size 25 (no handles) | ea. | 6 | 4.19 | 25.15 |
| Pick handles | handles for above | ea. | 6 | 1.60 | 9.60 |
| Crow bar | 1¼" x 60"-18 lb. | ea. | 1 | 8.02 | 8.02 |
| Ripping bar | Plumb-5lbs | ea. | 1 | 1.68 | 1.68 |
| Shovels | Ames-long handle round point | ea. | 4 | 5.93 | 23.72 |
| Shovels | Scope size 14 | ea. | 2 | 7.24 | 14.48 |

| Item | Description | Unit | Qty | Price/ea | Total Cost |
|---|---|---|---|---|---|
| Screw driver | 12½" length | ea. | 1 | $ 2.00 | $ 2.00 |
| Pipe wrenches | Toledo: 18" | ea. | 2 | 5.49 | 9.98 |
| | Toledo: 14" | ea. | 2 | 3.88 | 7.76 |
| | Toledo: 12" | ea. | 1 | 3.32 | 3.32 |
| Steel tape | 10' rule | ea. | 2 | 2.20 | 4.40 |
| Pliers | side cutting | ea. | 2 | 4.14 | 8.28 |
| Pliers | regular | ea. | 2 | 1.76 | 3.52 |
| Cresent wrenches | 15" adjustable | ea. | 2 | 7.61 | 15.22 |
| | 12" adjustable | ea. | 1 | 4.82 | 4.82 |
| | 10" adjustable | ea. | 1 | 3.21 | 3.21 |
| Multi-socket | 12 different socket sizes on one wrench | ea. | 1 | 5.65 | 5.65 |
| Saw | 36" miners | ea. | 2 | 9.60 | 19.20 |
| Air hose | two braid ID 1½" OD 2 3/16" 250 PSI | 100' | 2 | 189.46 | 378.92 |
| Air hose fittings | spuds, clamps | lot | 3 | 10.50 | 31.50 |
| Air hose oiler | oils machine | ea. | 3 | 31.00 | 93.00 |
| Water hose | ID 1" OD 1 7/16" | 100' | 1½ | 87.59 | 131.38 |
| Water hose fittings | clamps, etc. | lot | 2 | 7.50 | 15.00 |
| Wire brush | wire scratch 13 11/16" length | ea. | 4 | .87 | 3.48 |
| Come "A" long | small cable hoist | ea. | 1 | 30.00 | 30.00 |
| Pipe threader | 1" size | ea. | 1 | 49.00 | 49.00 |
| Pipe cutter | 1/8" to 2" | ea. | 1 | 14.39 | 14.39 |
| Cutting oil | pipe cutting | 5 gal. | 1 | 7.97 | 7.97 |
| Pipe vise | 1/8" to 2" | ea. | 1 | 12.78 | 12.78 |
| Diesel fuel | for compressor | gal. | 29,000 | .18 | 5220.00 |
| Oil | for compressor | qt. | 120 | .60 | 72.00 |
| Gasoline | for generator | gal. | 3800 | .34 | 1292.00 |
| Oil | for generator | qt. | 35 | .60 | 20.40 |

| Item | Description | Unit | Qty | Price/ea. | Total Cost |
|---|---|---|---|---|---|
| Gasoline | for truck | gal. | 1969 | .34 | $ 670.00 |
| Oil | for truck | qt. | 45 | .65 | 29.00 |
| Oil | for mucker and Jack Leg | gal. | 410 | 1.87 | 766.00 |
| Electric wire | to blower from generator | foot | 100' | .90 | 90.00 |
| Electric wire | to pump | foot | 100' | .90 | 90.00 |
| Electric wire | for lights | foot | 150' | .75 | 112.00 |
| Switches | | ea. | 6 | .75 | 4.50 |
| Sockets | | ea. | 10 | .75 | 7.50 |
| Plug-ins | various | ea. | 6 | .65 | 3.90 |
| Light bulbs | 100W | ea. | 30 | .26 | 7.80 |
| Mine lamps | Miners electric #5100 G1 | ea. | 3 | 38.81 | 116.43 |
| Lamp chargers | individual | ea. | 2 | 25.87 | 51.74 |
| Diesel & Gas barrels | | ea. | 10 | 5.00 | 50.00 |
| Fire extinguisher | for safety | ea. | 1 | 30.00 | 30.00 |
| First Aid kit | for safety | ea. | 1 | 15.10 | 15.10 |
| | | | | | $73,920.00 |

only 3 lamps.

TOTAL COST FOR SECTION (c) $73,920.00

## (d) OPERATING EQUIPMENT

All of the equipment will be purchased by myself and depreciated as outlined below. I have looked at and priced equipment at many suppliers. In many instances I have received quotations which I will enclose at the end of this section. I intend to buy the equipment at the quotation prices given to me by the suppliers.

It is estimated that the drifting and tunneling will take approximately 22.5 man months to complete. (Ref. Plan)

| Item | Cost | Salvage | Base | Type of Deprec. | No. of Years | Month Deprec. | Annual Deprec. |
|---|---|---|---|---|---|---|---|
| 600 CFM compressor (used) | $10,600 | $100 | $10,500 | S.L. | 3 | $292 | $3500 |
| | Total depreciation for the project is 22.5 months x $292 per month = $6570 | | | | | | |
| FL 63 Gardner-Denver Jack Leg (new) | $1133 | $25 | $1108 | S.L. | 3 | $31 | $369 |
| | Total depreciation for the project is 22.5 months x $31 per month = $697 | | | | | | |
| Eimco 12B mucker 24" gauge (used) | $2432 | $25 | $2407 | S.L. | 2 | $100 | $1204 |
| | Total depreciation for the project is 22.5 months x $100 per month = $2250 | | | | | | |
| Motor 1½ ton Atlas | $4833 | $100 | $4733 | S.L. | 3 | $161 | $1577 |
| | Total depreciation for the project is 22.5 months x $161 per month = $3623 | | | | | | |
| Blower I-21 Joy 5 HP | $440 | $20 | $420 | S.L. | 3 | $11.70 | $140 |
| | Total depreciation for the project is 22.5 months x $11.70 per month = $263. | | | | | | |

| Item | Cost | Salvage | Base | Type of Deprec. | No. of Years | Month Deprec. | Annual Deprec. |
|---|---|---|---|---|---|---|---|
| Water pump | $150 | $10 | $140 | S.L. | 2 | $5.80 | $70 |
| | Total depreciation for the project is 22.5 months x $5.80 = $130 | | | | | | |
| Mine cars 3-30 cu. ft. 24" gauge (used) | $855 | $25 | $830 | S.L. | 3 | $26 | $277 |
| | Total depreciation for the project is 22.5 months x $26 per month = $585 | | | | | | |
| Timber car | $62 | $5 | $57 | S.L. | 3 | $1.58 | $19 |
| | Total depreciation for the project is 22.5 months x $1.58 per month = $35 | | | | | | |
| Generator 7.5 KW (new) | $794 | $25 | $769 | S.L. | 5 | $12.80 | $154 |
| | Total depreciation for the project is 22.5 months x $12.80 per month = $288 | | | | | | |
| 2 500 gal. fuel tanks (used) | $275 | $10 | $265 | S.L. | 5 | $4.40 | $53 |
| | Total depreciation for the project is 22.5 months x $4.40 per month = $99 | | | | | | |
| Car switch (cherry picker) | $300 | $10 | $290 | S.L. | 2 | $12 | $145 |
| | Total depreciation for the project is 22.5 months x $12 per month=$270 | | | | | | |
| Pick-up truck 1-ton Dodge Power Wagon | (Ref. Depreciation schedule on truck) Total depreciation for the project is 45% of $2882 = $1297 | | | | | | |

TOTAL COST OF SECTION (d) $16,007

(e)

None

(f)

None

(See section on Building)

(g) REPAIRS AND MAINTENCE

| Item | Repair Cost | Maintence in Total Hours | Rate per Main. Hrs. | Total Main. Cost | Total Cost |
|---|---|---|---|---|---|
| Compressor | $750 | 350 | $4.50 | $157.50 | $2325.00 |
| FL 63 Jack Leg | 175 | 25 | 4.50 | 112.25 | 287.25 |
| Eimco 12B Mucker | 325 | 55 | 4.50 | 24.75 | 349.75 |
| Motor | 450 | 195 | 4.50 | 877.00 | 1327.00 |
| Blower | 30 | 15 | 4.50 | 67.50 | 97.50 |
| Water pump | 25 | 15 | 4.50 | 67.50 | 92.50 |
| Mine cars | 100 | 40 | 4.50 | 180.00 | 280.00 |
| Generator | 35 | 120 | 4.50 | 540.00 | 575.00 |
| Car switch | 30 | | | | 30.00 |
| Truck | 135 | | | | 135.00 |
| | | 815 hrs. | | | $5499.00 |

## ACCOUNTING AND SECRETARIAL WORK FOR TUNNELING AND DRIFT

It is estimated that it will take 735 hours to do the accounting and secretarial work required for tunneling and drifting.

| Hours | Rate per Hour | Total Cost |
|---|---|---|
| 735 | $2.50 | $1838 |

## PAYROLL TAXES AND INSURANCE

Workman's Compensation

Utah rate is 3.16% of $1.00 or .0316

Unemployment Insurance

Utah rate is 2.7% of $1.00 or .0270

F.I.C.A.

Rate that must be paid on employee is 3 5/8% of $1.00 or..03625

.09485

or

Employee P.T. & I. rate----------9.49%

Employer F.I.C.A. rate is $1\frac{1}{2}$ times employee rate,

or $1\frac{1}{2}$ x 3 5/8% of $1.00 or .0544

| | |
|---|---|
| Workman's compensation | .0316 |
| Unemployment insurance | .0270 |
| F.I.C.A. | .0544 |
| | .1130 |

or

Employer P.T. & I. rate----------11.3%

Total Payroll Taxes and Insurance (Ref. 7 (b) and (g) for hours)

| Item | Rate per Hour | | Tax & Ins. Rate | | Total Rate per Hour | | Total Hours | | Total P.T. & I. |
|---|---|---|---|---|---|---|---|---|---|
| Supervisor | $7.00 | x | 11.3% | = | .79¢ | x | 1071 | = | $846 |
| Miners | 6.57? | x | 9.49% | = | .62¢ | x | 7616 | = | 4722 |
| Maintence Labor | 4.50? | x | 11.3% | = | .51¢ | x | 815 | = | 416 |
| *Accountant Secretary | 2.50 | x | 6.33% | = | .16¢ | x | 735 | = | 118 |
| | | | TOTAL P.T. & I. | | | | | | $6102 |

*Accountant-secretary taxes and insurance will not include workman's compensation insurance. This liability will be covered by employee-paid medical insurance. Therefore tax and insurance computation is as follows:

Unemployment insurance and F.I.C.A. .06325

TOTAL FOR SECTION (g) $13,439

Tunn
Bids

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
TUNNEL DRIVING
MINE PLANT DESIGN
AND FABRICATION

**Boyles Bros.**
**DRILLING COMPANY**

CONTRACTORS-ENGINEERS-GEOLOGISTS

General Offices and Plant
1624 Pioneer Road P. O. Box 58 Phone 487-7595
SALT LAKE CITY, UTAH 84110

BRANCH OFFICES
PHOENIX
RENO
SPOKANE
DENVER
SACRAMENTO
SANTIAGO, CHILE
LIMA, PERU

F. E. PETERS
Manager—Mining Division

March 25, 1965

Mr. Tom F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

Dear Sir:

labor + equipment

We are bidding your job to drive 2,300 feet of tunnel for $57.00/L.F. If tunnel needs timbering, we will install timber for $0.11/B.F. Rate of advance will be 12 to 15 feet per 24 hours.

Under your letter we assume you are furnishing all supplies such as mine rail, water and air pipe, fan bag, powder, primers and timber.

We propose to rehabilitate 3,200 feet of tunnel for $655.00 per day, which will include the surface plant, labor, equipment, fuel and small tools. We think, not being able to see in the tunnel, that we can rehabilitate 25' to 40' per 24 hour day.

We will excavate the diamond drill sites for $400.00 each.

We will install timber in the drill sites for $0.11/B.F. with you furnishing the timber.

Very truly yours,

F. E. Peters

F. E. Peters

FEP:bg

HAROLD B. SPENCER, PRESIDENT
JAMES QUIGLEY, VICE-PRESIDENT
ROBERT E. WATT, SEC'Y-TREASURER

P. O. BOX 290
TELEPHONE 433-6876
AREA CODE 801

# CENTENNIAL DEVELOPMENT COMPANY

MINING ENGINEERS AND CONTRACTORS

EUREKA, UTAH

March 16, 1965

Mr. Tom F. Miller
2112 Westminster Avenue
Salt Lake City, Utah

Dear Mr. Miller:

In response to your letter of March 10 and our meeting in this office on March 13, we are pleased to offer the following estimates for the development you propose at the Vipont Mine in northwest Utah.

**New Tunnel**

1800 ft. long with 250 ft. crosscut in each direction at end, 2300 lineal ft. total. 7 ft. x 8 ft. inside timber sets constructed from 8" x 8" timber on 6 ft. centers. Tunnel to be equipped with 20 lb. rail, 4" air line, 1" water line, and 14" - 24 gauge spiral vent line.

| | | |
|---|---|---|
| Per lineal ft. unsupported by timber | | $ 65.00 |
| Extra for portions requiring timber support | | $ 16.00 |

**Drill Stations, Each**

12 ft. x 8 ft. x 6 ft. = 576 cubic ft.

| | | |
|---|---|---|
| 576 cubic ft. @ $0.50 | $288.00 | |
| Extra for stations requiring timber | 200.00 | $488.00 |

The above estimates are based starting from a portal levelled by you with a serviceable mine change house and water supply. We will provide all supervision, labor, equipment, materials, and operating supplies necessary to complete the work.

We appreciate the opportunity of making this estimate and when you have selected a site we can examine the project in detail and, at that time, make a firm price offer.

Very truly yours,

Centennial Development Company

James Quigley

James Quigley

JQ/ce

Electric CENTER INC.
A Division of Machinery Center, Inc.
PHONE HUNTER 4-7391 1201 SOUTH 6TH WEST P.O. BOX 964 SALT LAKE CITY 10, UTAH

May 3, 1965

Tom Miller
2112 Westminister Avenue
Salt Lake City, Utah

Dear Mr. Miller:

I am sorry to have been detained in confirming prices on description on several items of mining machinery that you inspected and inquired about. However, our stocks are very good at the moment and we are pleased to quote as follows:

LOCOMOTIVES

1 - 1-1/2 ton Atlas Battery Locomtive, 24" gauge, complete with battery box and charging equipment including panel and motor generator set, less batteries. Rebuilt, excellent condition.
Price, f.o.b. Salt Lake City, Utah. . . . . $3,450.00 + TAX
Price, f.o.b. Salt Lake City, Utah, one new C & D 315 AH Battery. . . . . $1,220.00

1 - 1-1/2 ton Mancha Trammer Locomotive 24" gauge or 18" gauge, complete with battery box 5 HP Hertner Automatic Charging Panel, and M.G. Set, less batteries. Reconditioned. 33" O.A. width - 48" height. Weight less batteries is 2700 lbs.
Price, f.o.b. Salt Lake City, Utah. . . . . $3,750.00
Price, one new Gould or C&D 315 AH Batteries, f.o.b. Salt Lake City, Utah. . . . . $1,220.00

1 - 4-3/4 - 6-ton Mancha "Electric Mule" Std. (AN) Battery Locomotive, 24" gauge, equipped with hand wheel brake control, 4-wheel worm transmission, Type C-61-6 motor, 225 amp, 80 volts, Serial No. MG1186 and Type M307 drum controller, 16" dia. wheels, self-aligning roller bearings. INCLUDES: 1 battery box complete with 13 trays of 4 cells each (52 cell Gould Industrial batteries) complete with Hertner Charging Panel using Exice MP2 control and Allis Chalmers MG Set 75 amp 120 volt D/C, direct coupled 10 HP G.E. motor, 3/60/220/440 volt, 1800 rpm. All good condition.
Price, f.o.b. Salt Lake City, Utah. . . . . $7,500.00
Price, f.o.b. Salt Lake City, Utah, including 1 new shop-made battery box. . . . . $ 450.00
Price, f.o.b. KanKaKee, Ill, 1 new 50-cell C&D/Gould 45X19 405 amp per hour lead acid battery. . . . . $3,647.00

2 - 4-ton Greensburg Battery Locomotives, 24" gauge, monitor type, Serial No. 2464 and 2465 equipped with Timken roller bearing journals and 3½" dia. axles; double equalizer; 16" dia. rolled steel wheels mounted inside of frame; chain drive to operate in oil bath; 6 speed split field controller, speed light 7 MPH, loaded 5 MPH; overall dimensions 98" long, 40" wide, 44" high, wheel base 27-3/4 ", radius of minimum curve 10ft., chasis weight 5,000 lbs. weight including battery 4 ton: link and pin coupling; unit complete with (2) 40-cell battery boxes less batteries, 7½ KW Hertner battery charger and control Type K-1-40SE13, Serial No. 77283A and 7715A. Unit fully reconditioned.
Price, each, f.o.b. Salt Lake City, less batteries. . . . . .$5,500.00
Price, each, f.o.b. Salt Lake City including (1) 40-cell 60X13 Gould 360 AH battery, used. . . . . $7,000.00
Price, each, f.o.b. KanKaKee including (1) 40-cell 60X13 Gould 360 AH battery, new. . . . . $8,180.00
Price, each, f.o.b. Salt Lake City (1) 40-cell MDS11 C&D 360 AH battery only, new. . . . . .$2,680.00

MINE CARS

13 - 20.4 cu. ft. C.S. Card Mine Ore Cars, swivel end dump, dimensions 48" x 30" x 24" deep, 44" high above rail, 24" gauge, 18" wheel base, L&P couplers, roller bearing wheels.
Price, f.o.b. Nevada Location. . . . . .$ 125.00 ea

8 - 30 cu. ft. Coeur d'Alene Co. Mine Ore Cars, Side dump; roller bearings, 14" wheels, 49" above rail 24" gauge.
Price, f.o.b. Mullan, Idaho. . . . . $ 275.00 ea

2 - 18 cu. ft. Mine Cars, End dump, 24" gauge, manufactured by Caird Engineering Works, Helena, Montana. One with new body.
Price, f.o.b. Salt Lake City, Utah. . . . . $ 150.00 ea

3 - 24" gauge Timber Trucks
Price,Salt Lake City, Utah. . . . . $ 60.00 ea

3 - 24" Gauge Timber Trucks
Price, f.o.b. Butte, Montana. . . . . $ 50.00 ea

75 - 34 cu. ft. Ajax Couer d'Alene Mine Cars, 24 gauge, side dump.
Price, f.o.b. Northwest Location. . . . . $3,750.00
10-car lot

The above cars are quoted as is operating condition subject to your inspection and selection of suitable units.

25 - 36 cu. ft. C & S Card Do. Model 36-24 24 gauge side dump.
Price, f.o.b. West Virginia. . . . . .$ 150.00 ea

The above cars were moved from service partially disassembled and are quoted as is subject to inspection and selection.

7 - 36 cu. ft. rocker dump cars, 24" gauge, 6 sets of automatic couplers, some wheels have been buklt up, the sides of all cars have been built up and all latches rebuilt. Cars totally in good working condition.
Price, f.o.b. (lot) West Coast. . . . . .$3.650.00

MINE RAIL & ACCESSORIES

32 Tons of 20 lb. Mine Rail, No. 1 Relay, 20 ft. lengths.
Price, f.o.b. Western Location. . . . . .$ 155.00 ton

260 Pair of 20 lb. Rail Splice Bars.
Price, f.o.b. Western Location. . . . . $ .70 pair

20 Ton of 20 lb. Mine Rail, No. 1 Relay, mostly 30 ft. lengths, some 12 and 15 ft. lengths complete with splice bars and exisiting track bolts.
Package Price, f.o.b. Western Location. . . . . $3,000.00

60 Tons of 30 lb. Mine Rail, No. 1 Relay, 20 ft. lengths.
Price, f.o.b. Western Location. . . . . .$ 155.00 ton

100 Pair of 30 lb. Splice Bars.
Price, f.o.b. Western Location. . . . . .$ .70 pair

MUCKERS

1 - Eimco Model 12B Mucking Machine, 24" gauge, Serial Number 9728. Reconditioned. Weight 4200 lbs.
Price, f.o.b. Salt Lake City, Utah. . . . . .$2,450.00 ea

1 - Eimco 12B Rockershovel, 24" gauge, Reconditioned.
Price, f.o.b. Salt Lake City, Utah. . . . . .$2,350.00

2 - Eimco Model 21 Mucking Machines. 24" gauge. Serial Numbers 1094 and 5552 Reconditioned. Weight 7400 lbs.
Price, f.o.b. Salt Lake City, Utah. . . . . .$2,850.00 ea

2 - Eimco Model 24 Loaders, Serial No.'s 10038 and 10037. 24" gauge, C Deck units with 30" arms and Bucket No. 24M230. Reconditioned. 103" cleaup width. 90" headroom, 58" discharge height.
Price, f.o.b. Salt Lake City, Utah. . . . . $3,750.00 ea

COMPRESSORS

1 - Ingersoll Rand Gyro-Flo #600 portable compressor "Mobil-air" without wheels or running gear, GMC Diesel Engine driven.
Price, f.o.b. Southwestern Location. . . . . .$10,000.00

1 - 600 CFM Gardner-Denver portable Model RP600DB, SN 206756. Approx. 1958. Powered by 671 GMC Diesel
Price, f.o.b. Utah . . . . . $8,500.00

1 - Model HK-500 Ingersoll-Rand Portable Air Compressor, air cooled with Model GWAKH Waukesha Diesel Engine, #557938, presently mounted on shopmade frame with hard rubber wheels.
Price, f.o.b. Nevada Location. . . . . $4,000.00

1 - 420 CFM Gardner Denver Portable Compressor, Model #WBH2207. 7-1/2" bore low pressure, 5-3/4" bore high pressure x 5" stroke. 870 rpm 100 psi. Serial No. 119210. Direct driven by D13000 Caterpillar Diesel Engine, 6 cylinder, 5-3/4" bore x 8" stroke, Serial No. 4S4913.
Price, f.o.b. Salt Lake City, Utah. . . . . .$3,250.00

BLOWERS

*6 - I-21 Joy Axivane Portable Blower, 21" dia. powered by 5 HP motors, 220/440 volt, 3 phase, 60 cycle, capacity, 4750 cfm at 4.5" water gauge. Weight 236 lbs. Reconditioned.
Price, each, f.o.b. Salt Lake City, Utah. . . . . $425.00

2 - I-19 Joy Axivane Portable Blowers, 19" dia. powered by 3 HP Electric Motors, 220/440 volt, 3 phase, 60 cycle. Capacity rating 3200 cfm at 4.5" water gauge. Reconditioned. Weight is 215 lbs. ea.
Price, each, f.o.b. Salt Lake City, Utah. . . . . .$350.00

1 - TM-6 Coppus Ventair Blower, 5 HP Westinghouse BB-DP motor, 220/440 volt, very excellent condition.
Price, f.o.b. Jardine, Montana. . . . . $225.00

3 - TM-5 Coppus Ventair Blowers, powred by 2 HP electric motors, 3 phase, 60 cycle, 440 volt, 3450 rpm, ball bearings, dripproof, capacities: 12" ventilation pipe, 100' - 2250 cfm; 200' - 2060 cfm; 500' - 1715 cfm; 800' - 1520 cfm; 1000' - 1420 cfm, shipping weight 275 lbs. Reconditioned.
Price, each, f.o. b. Salt Lake City, Utah. . . . . $17500.00

VENT PIPE

2000 ft.14" Galvanized Locksiame Pipe.
Price, . . . . . .$1.05 per ft.

14" Couplings for Above
Price. . . . . $1.52 each

The above vent pipe is the type shown you in our office and it can be supplied in any length you require up to 40'. If you require 2 lug ears on each length of pipe for supporting the coupling and securing the pipe to the messenger cable, this would cost $1.00 per length.

GENERATORS

1 - 10 KW (12.5 KCA) Kohler Gasoline Generator Set. ENGINE: Waukesha Size 3-1/4 x 4 Model FC, water cooled. GENERATOR: Kohler 3-phase, 60 cycle, 220 volts, 31 amp, 1200 rpm. Mounted on common steel base complete with batteries.
Price, f.o.b. Western Location. . . . . $950.00 net

1 - Diesel Generator Set, American M.A.R.C. 5 KW, Model SQ, 115/230 volt, single phase, 1800 rpm, Serial No. 284A764 3M10. Diesel engine Model A20-5-601-9-B. 2 Cycle.
Price, f.o.b. Salt Lake City, Utah. . . . . .$1250.00

1 - 7½ KW Lister-Lima Generator. ENGINE: Lister Diesel Model SL3, 12-3/4 BHP @ 1800 RPM. Hand cranking air cooled. GENERATOR: 7½ KW lima Dripproof single Bearing Close Coupled single phase, 120/240VAC or 220/440 volt 3 phase. Brushless. Self regulated.
Price, f.o.b. Salt Lake City. . . . . $2,170.00

1 - 10 KW Generator Set using 17 HP Lister Model SL4 Diesel Engine Electric Start.
Price. . . . . .$2,486.00

We distribute and assemble these units here in Salt Lake and for dependable, trouble-free service that has been proven, they will more than pay back the initial investment. The engines are easily started by hand at all temperatures encountered in this area or can be equipped with electric starting on the 7½ KW Model for $160.00 and is included on the 10 KW Model. The generators are brushless, self regulating that require very little maintenance. We enclose our sales bulletin for your further study.

MINE LAMPS

5 - National Wheat Cap Lamp #5100G1
Price. . . . . $37.50 ea

5 - Individual Chargers for Above.
Price. . . . . $25.00

We believe that we have covered the main items of equipment you will be considering. However, we have nearly anytype mining equipment you might need. Enclosed is our comprehensive catalogue for your future reference. On the equipment that is quoted reconditioned we do a very thorough job that I am sure you can depend on and that you will be pleased with.

We also enclose our descriptive catalogue covering the Long Tom Air Leg and Drill Jumbos and can assure you that proven production records using this equipment will result in increased footage ot 25 - 30% over conventional methods and certainly more than recover the initial investment.

If we can supply any additional information on specific items, we will be most happy to do so.

Thank you.

Sincerely,

ELECTRIC CENTER, INC.

J. B. Deering

J. B. Deering
Manager

JBD/mjw

Enclosures

LUMBER - HARDWARE - PAINT - BUILDING SUPPLIES

# McCASLIN LUMBER CO.

"Everything to Build Anything"

PHONE ORchard 8-2211
1105 OVERLAND AVENUE
BURLEY, IDAHO

4-26-65

Mr Paul F Miller
2112 North Wasatch ave
Salt Lake City, Utah

Dear Mr Miller

As per your office request for Lumber Prices Covering Rough Materials.

You have first copy of materials quoted on, It will be around June 1st before we can set a definite delivery date. We buy the cut from two mills the mills are out of logs and the snow is 4 feet deep, So you can see our position to make delivery.

We appreciate your inquiry, if you would give us a listing of your needs We could pass the information on to the mills.

FS Truck Load only.

Yours truly
McCaslin Lbr Co
E E Weldon

Mark Denn... : SO Oakly

No. 7832

Date 4-26 1965

Figured By JEW

Estimate To Tom F Nickel

Job

Checked By

Address 2112 Mark Manister Ave. Mall Heights Phone

Owner Shed 24x30x8

Owner's Address

| | LIN. FT. | PIECES | SIZE | LENGTH | DESCRIPTION | FEET | TOTAL FEET | ✓ | RATE | AMOUNT | | EXTENSION | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | 8 x 8 | 16 | Douglas Fir | | | | 110.00 | M | | | |
| 2 | | | 3 x 12 | 12 | " " | | | | 110.00 | | | | |
| 3 | | | 2 x 4 | 12" | Mine Hardwood & Fir | | | | 86.40 | | | | |
| 4 | | | 1 x 12 | | Random Lgth | | | | 86.40 | | | | |
| 5 | | | 2 x 4 | 8 | Douglas Fir | | | | 86.40 | | | | |
| 6 | | | x | | | | | | | | | | |
| 7 | | | x | | | | | | | | | | |
| 8 | | | x | | | | | | | | | | |
| 9 | | | x | | | | | | | | | | |
| 10 | | | x | | | | | | | | | | |
| 11 | | | x | | | | | | | | | | |
| 12 | | | x | | | | | | | | | | |
| 13 | | | x | | Estimate of Materials | | | | | | | | |
| 14 | | | x | | To Erect Storage Bldg | | | | | | | | |
| 15 | | | x | | 24' Wide - 30' Long | | | | | | | | |
| 16 | | | x | | | | | | | | | | |
| 17 | | 2 | 4 x 6 | 14 | SF Rgh Sec Post | 56 | | | | M | | | |
| 18 | | 2 | 4 x 6 | 16 | " " " | 64 | | | | | | | |
| 19 | | 4 | 4 x 6 | 12 | " " " | 96 | | | 110.00 | | | | |
| 20 | | 2 | 2 x 4 | 14 | " " " | 19 | | | | | | | |
| 21 | | 2 | 2 x 4 | 16 | " " " | 21 | | | | | | | |
| 22 | | 4 | 2 x 4 | 12 | " " " | 32 | | | 86.40 | | | | |
| 23 | | 80 | 2 x 4 | 8 | Studs | 427 | | | ✓ | | | | |
| 24 | 972 | | 1 x 12 | 16 | Siding | 972 | | | 90.00 | | | | |
| 25 | | 40 | 2 x 6 | 16 | Rafters | 640 | | | 90.00 | | | | |
| 26 | | 2 | 2 x 8 | 20 | Ridge | 53 | | | 90.00 | | | | |
| 27 | | 30 | 2 x 6 | 16 | Roof Nailer | 480 | | | 90.00 | | | | |
| 28 | | 84 | 1 x 12 | 16 | + 1 x 2 Batts Roof | 1344 | | | 90.00 | | | | |

We Agree To Furnish The Above Items For The Sum Of $ F. O. B.

Accepted 19

Provided This Estimate Is Accepted Within From This Date 19

PLEASE EXAMINE THIS ESTIMATE CAREFULLY AS WE AGREE TO FURNISH ONLY THE ARTICLES NAMED AND DESCRIBED HEREON. ALL AGREEMENTS CONTINGENT UPON STRIKES, ACCIDENTS OR OTHER CAUSES OF DELAY BEYOND OUR CONTROL.

By

By

By

Rediform 4H 430

**ESTIMATE**

FILE COPY

Bush
SALES & MFG., INC.

344 West 8th South
Salt Lake City, Utah

PHONE ELGIN 5-4804

April 28, 1965

Tom F. Miller
2162 Westminister Ave.
City

Dear Mr. Miller:

In regards to our telephone conversation of today, we are pleased to quote you on a new 7500 watt 115/230 volt Dayton gas driven generator, your price being $767.50, plus Utah Sales Tax.

It would take approximately ten days for delivery after receipt of your order.

Yours very truly,

BUSH SALES & MFG., INC.

Giles F. Bush

Giles F. Bush

gb

*Industrial Experimentation Apparatus*

MOTORS AC-DC. PUMPS. COMPRESSORS. TRANSFORMERS. BLOWERS. GEAR REDUCERS. HYDRAULIC EQUIPMENT. CONTROL MOTORS. SWITCHES. SOLENOIDS. INSTRUMENTS · METERS. RELAYS. CASTERS. RESISTORS. CAPACITORS. BEARINGS. GOVERNMENT SURPLUS.

# GARDNER-DENVER COMPANY

35 WEST LOUISE AVENUE
P. O. BOX 15627
SALT LAKE CITY, UTAH 84115

EXECUTIVE OFFICES
QUINCY, ILLINOIS


April 21, 1965

Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah

Dear Mr. Miller:

In line with our conversation, we wish to quote on the following:

| | |
|---|---|
| FL63 Drill with FL8 Retractable Leg - - - - - - | $1,235.00 ea. |
| FL63 Drill with FL6 #2 Direct Feed Leg - - - - | $1,095.00 ea. + TAX = |
| 1" hex x 4-1/4" shank 72" U.C. darburized drill rod with liddicoat taper - - - - - - - - | $ 20.75 ea. |
| 1" hex x 4-1/4" shank 96" U.C. carburized drill rod with liddicoat taper - - - - - - - - | $ 25.15 ea. |
| * 7/8" hex x 4-1/4" 72" U.C. drill rod, tapered | $ 18.75 ea. + TAX = 19.41 |
| 7/8" hex x 4-1/4" 96" U.C. drill rod, tapered | $ 22.35 ea. |
| * 1-3/8" Liddicoat T.C. Bits - - - - - - - - - - | $ 4.80 ea. + TAX = $4.97 |
| 4' CL5-1200 series drill rod - - - - - - - - - - | $ 17.45 ea. |
| 1200 Series couplings - - - - - - - - - - - - - | $ 6.10 ea. |
| Shanks 1" x 4¼ with 1200 thread - - - - - - - | $ 18.95 ea. |
| SP365 Rota-Screw compressor - - - - - - - - - - | $17,135.00 ea. |
| SP600 Rota-Screw compressor - - - - - - - - - - | $22,935.00 ea. |

Used equipment is available at times. This type of equipment is demonstrator type and prices are available on request.

Depreciation on Rock Drills (new) is approximately 3 years. As an example; If a unit cost $925.00 you must declare a salvage value, $25.00 and you can deduct $300.00 per year as depreciation.

Depreciation on a new compressor is 8 to 10 years; on a used compressor it is approximately 5 years. This depreciation can be shown the same as above example. If you have a short term lease, depreciation on some items can be taken in one year except for salvage.

The air compressors are quoted f.o.b. shipping point and the balance of the items are f.o.b. destination.

We are enclosing brochures which describe the equipment quoted.

If we can be of any further assistance, please do not hesitate to contact us.

Very truly yours,

GARDNER DENVER COMPANY

A. J. Elegante Jr.

A. J. Elegante
Field Salesman

AJE:jl

# WESTERN POWDER COMPANY

BOX 2015 — SALT LAKE CITY 10, UTAH
368 ~~103~~ West ~~2nd~~ South
182

## EXPLOSIVES and BLASTING ACCESSORIES

## UTAH PRICE LIST NO. 12-G

## EFFECTIVE — January 7, 1963

All prices subject to change or withdrawal without notice. Quantity prices are based on one sale, one delivery.

---

### HIGH EXPLOSIVES
Per 100 Pounds

| | 7/8 Inch Diameter | | 1-1/8 Inch Diameter | |
|---|---|---|---|---|
| | 2,000 Lb. Lots | Less than 2,000 Lbs. | 2,000 Lb. Lots | Less than 2,000 Lbs. |
| 40% EXTRA | $ 26.50 | $ 28.00 | $ 25.50 | $ 27.00 |
| GELAMITE or GELODYN | 28.25 | 29.75 | 27.25 | 28.75 |
| *40% GELATIN EXTRA | 29.20 | 30.70 | 28.20 | 29.70 |
| 60% GELATIN EXTRA | 30.70 | 32.20 | 29.70 | 31.20 |

For 1-inch diameters, deduct 50¢ per 100 pounds from 7/8 inch diameter.

Price - ALL GRADES

## SURFACE DRILLING

Total Footage--10,400' of "BX", "BX" Wireline--Core 1 3/8" size
Estimate 28' per 8 hour shift (this equals one man shift)

7000' will be drilled during 5-day-a-week 8 hour shifts, or
7000'÷ 28' = 250 shifts x 8 hours a shift = 2000 hours

3400' will be drilled on overtime to take advantage of the outside drilling weather. The overtime will be worked as follows: 6 day week x 10 hours a day
This would amount to 81 hours of overtime a month x 12 months = 972 hours ÷ 8 hours = 121 man shifts x 28' a shift = 3388' or approximately 3400'

It will take $2\frac{1}{4}$ hours of supervision for each 8 hour man shift worked, or $2\frac{1}{4}$ x (250 + 121) = 835 hours of supervision.

Surface core drilling

## SUMMARY

| | | |
|---|---|---|
| Sec. (a) | ---------None--------- | $------ |
| Sec. (b) | Personal Services | 34,378 |
| Sec. (c) | Materials and Supplies | 24,387 |
| Sec. (d) | Equipment | 3,633 |
| Sec. (e) | ---------None--------- | ------ |
| Sec. (f) | ---------None--------- | ------ |
| Sec. (g) | Miscellaneous | 6,690 |
| | TOTAL COST ---------- | $69,088 |

Price per foot

$69,088 ÷ 10,400' = $6.64 per foot

Note: Drill mud and additives are not included in the price per foot. However, if required, they will be added at cost.

(a)

None

(b) PERSONAL SERVICES

| | No. Required | Rate per Hour | Total Hours | Total Cost |
|---|---|---|---|---|
| Supervisor | 1 | $7.00 | 835 | $5,845 |
| Driller | 1 | 4.50 | 2000 | 9,000 |
| Overtime rate | | 6.75 | 972 | 6,561 |
| Helper | 1 | 3.75 | 2000 | 7,500 |
| Overtime rate | | 5.63 | 972 | 5,472 |
| Total Personal Services Less P.T. & I. | | | | $34,378 |

The above services are available from brother-in-law and wife's uncle.

Both of the above have spent time doing manual labor, such as truck driver, carpentry work, dam construction, and road construction.

Jack Powers, an experienced core driller from Joy Manufacturing Co., of the Salt Lake City office, will spend some time on the site training these men.

Period of employment: for the drillers, it will be approximately 12 months.

TOTAL FOR SECTION (b) $34,378

## (c) OPERATING MATERIALS AND SUPPLIES

| Item | Description | Unit | Qty | Price/ea. | Total Cost |
|---|---|---|---|---|---|
| "BX" diamond bits | Christensen "A" grade 14.50 carat | ea. | 70 | $188.50 | $13,195.00 |
| "BX" Reaming shell | Joy | ea. | 2 | 100.25 | 200.50 |
| "BX" Wireline core barrel | Joy | ea. | 2 | 362.50 | 725.00 |
| "BX" Wireline inner tube | Joy | ea. | 1 | 233.00 | 233.00 |
| Safety hook | for tripod | ea. | 1 | 15.00 | 15.00 |
| Sheave | for tripod | ea. | 1 | 35.00 | 35.00 |
| Hi-pressure hose with connectors | 25' from pump to drill | ea. | 1 | 235.00 | 235.00 |
| Suction hose with connectors | 25' length to pump; water | ea. | 1 | 75.00 | 75.00 |
| Foot valve | strain water | ea. | 1 | 27.50 | 27.50 |
| Tripod | hold sheave to hoist | ea. | 1 | 48.50 | 48.50 |
| Male rod tap "BX" | pull broilen rod | ea. | 1 | 45.00 | 45.00 |
| Bit recovering tap | recover bits | ea. | 1 | 68.20 | 68.20 |
| "BX" Drill rod (new) | BX-Wl 4 threads per inch 10' length | foot | 800' | 3.03 | 2454.30 |
| Pipe wrenches | 10" | ea. | 1 | 2.85 | 2.85 |
| | 18" | ea. | 1 | 5.49 | 5.49 |
| | 24" | ea. | 1 | 8.65 | 8.65 |
| | 36" | ea. | 1 | 18.27 | 18.27 |
| Cresent wrenches | 12" adjustable | ea. | 1 | 4.82 | 4.82 |
| | 15" adjustable | ea. | 1 | 7.61 | 7.61 |
| Pliers | regular | ea. | 1 | 1.76 | 1.76 |
| Crow bar | 1¼" x 60"-18 lb. | ea. | 2 | 8.02 | 16.04 |

| Item | Description | Unit | Qty | Price/ea. | Total Cost |
|---|---|---|---|---|---|
| Ripping bar | 5-lb | ea. | 1 | 1.68 | 1.68 |
| Hammer | 10 lb-36" handle | ea. | 1 | 6.52 | 6.52 |
| | 4 lb-16" handle | ea. | 1 | 3.62 | 3.62 |
| Hammer | ball pein | ea. | 1 | 2.65 | 2.65 |
| Axe | singe bit miners | ea. | 1 | 10.16 | 10.16 |
| Gasoline | for drill | gal. | 6600 | .34 | 6150.50 |
| Oil | for drill | qt. | 305 | .65 | 198.25 |
| Gasoline | for truck | gal. | 1750 | .34 | 595.00 |
| Oil | for truck | qt. | 40 | .65 | 26.00 |
| | | | | | $24,387.00 |

TOTAL COST FOR SECTION (c) $24,387

## (d) OPERATING EQUIPMENT

All of the equipment will be purchased by myself and depreciated as outlined below. I have looked at and priced equipment at many suppliers. In many instances I have received quotations which I will enclose at the end of this section. I intend to buy the equipment at the quotation prices given to me by the supplier.

It is estimated that the surface diamond drilling will take approximately 12 months to complete. (Ref. plan)

| Item | Cost | Salvage | Base | Type of Deprec. | No. of Years | Month Deprec. | Annual Deprec. |
|---|---|---|---|---|---|---|---|
| Joy 12B Diamond drill (used) | $3500 | $100 | $3400 | S.L. | 2 | $142 | $1700 |
| | Total depreciation for the project is 12 months x $142 per month = $1700 | | | | | | |
| Water pump for drill (used) | $1040 | $20 | $1020 | S.L. | 2 | $42.50 | $510 |
| | Total depreciation for the project is 12 months x $42.50 per month = $510 | | | | | | |
| Water pump; pump water to drill (used) | $140 | $20 | $120 | S.L. | 2 | $5.83 | $70 |
| | Total depreciation for the project is 12 months x $5.83 per month = $70 | | | | | | |
| Safety clamp (new) | $150 | $10 | $140 | S.L. | 2 | $5.83 | $70 |
| | Total depreciation for the project is 12 months x $5.83 per month = $70 | | | | | | |
| Water swivel (new) | $150 | $10 | $140 | S.L. | 2 | $5.83 | $70 |
| | Total depreciation for the project is 12 months x $5.83 per month = $70 | | | | | | |

| Item | Cost | Salvage | Base | Type of Deprec. | No. Of Years | Month. Deprec. | Annual Deprec. |
|---|---|---|---|---|---|---|---|
| Overshot | $129 | $7 | $122 | S.L. | 2 | $5.00 | $61 |

Total depreciation for the project is 12 months x $5.00 per month = $60

Pick-up truck 1-ton Dodge Power Wagon — Total depreciation for the project is 40% of $2882 = $1153

TOTAL COST FOR SECTION (d) $3633.00

(e)

None

(f)

None

(See section on Building)

(g) REPAIRS AND MAINTENCE

| Item | Repair Cost | Maintence in Total Hours | Rate per Main. Hrs. | Total Main. Cost | Total Cost |
|---|---|---|---|---|---|
| Drill Joy 12B | $625 | 150 | $4.50 | $675.00 | $1300.00 |
| Drill pump | 425 | 55 | 4.50 | 247.00 | 672.00 |
| Water pump | 85 | 30 | 4.50 | 135.00 | 220.00 |
| Truck | 120 | | | | 120.00 |
| | | 235 hrs. | | | $2312.00 |

ACCOUNTING AND SECRETARIAL WORK FOR SURFACE DRILLING

It is estimated that it will take 312 hours to do the accounting and secretarial work required for surface drilling.

| Hours | Rate per Hour | Total Cost |
|---|---|---|
| 312 | $2.50 | $780.00 |

## PAYROLL TAXES AND INSURANCE

**Workman's Compensation**

Utah rate is 3.16% of $1.00 or .0316

**Unemployment Insurance**

Utah rate is 2.7% of $1.00 or .0270

**F.I.C.A.**

Rate that must be paid on employee is 3 5/8% of $1.00 or .03625

.09485

or

Employee P.T. & I. rate---------- 9.49%

Employer F.I.C.A. rate is $1\frac{1}{2}$ times employee rate,

or $1\frac{1}{2}$ x 3 5/8% of $1.00 or .0544

| | |
|---|---|
| Workman's compensation | .0316 |
| Unemployment Insurance | .0270 |
| F.I.C.A. | .0544 |
| | .1130 |
| | or |
| Employer P.T. & I. rate---------- | 11.3% |

**Total Payroll Taxes and Insurance** (Ref. 7 (b) and (g) for hours)

| Item | Rate per Hour | | Tax & Ins. Rate | | Total Rate per hour | | Total Hours | | Total P.T. & I. |
|---|---|---|---|---|---|---|---|---|---|
| Supervisor | $7.00 | x | 11.3% | = | .79¢ | x | 835 | = | $660.00 |
| Driller | 4.50 | x | 9.49% | = | .43¢ | x | 2000 | = | 860.00 |
| (overtime) | 6.75 | x | 9.49% | = | .64¢ | x | 972 | = | 622.00 |
| Helper | 3.75 | x | 9.49% | = | .36¢ | x | 2000 | = | 720.00 |
| (overtime) | 5.63 | x | 9.49% | = | .53¢ | x | 972 | = | 515.00 |
| Maintence Labor | 4.50 | x | 11.3% | = | .51¢ | x | 235 | = | 120.00 |
| *Accountant Secretary | 2.50 | x | 6.33% | = | .16¢ | x | 312 | = | 101.00 |
| | | | TOTAL P.T. & I.---------- | | | | | | $3598.00 |

*Accountant-secretary taxes and insurance will not include workman's compensation insurance. This liability will be covered by employee-paid medical insurance. Therefore tax and insurance computation is as follows:

Unemployment Insurance and F.I.C.A. .06325

TOTAL COST FOR SECTION (g) $6690

Drill Bids

Longyear

E. J. LONGYEAR COMPANY
General Offices, 76 South 8th St.
Minneapolis 2, Minnesota, U. S. A.
TELEPHONE: FEDERAL 9-7631 • CABLE LONGCO

May 11, 1965

Mr. Tom F. Miller
69 East Street
Salt Lake City, Utah

EXPLORATION DIAMOND DRILLING VICINITY OAKLEY, IDAHO

Gentlemen:

1. In response to your letter of March 15, 1965, we are pleased to submit below our proposal for your contemplated exploratory diamond drilling program at Oakley, Idaho.

2. We understand that the project as now planned will consist of both underground and surface drilling under the following specifications:

A. Underground Drilling:
(1) Operating schedule - work to start between August 1 and 15, 1965; one drill operating one or two shifts per day, six days per week.
(2) Number, depth and angle of holes - minimum of 12,000 feet in a series of holes inclined from plus 18 degrees to minus 90 degrees, as measured from the horizontal, and ranging in total depth from 50 feet to a possible maximum of 600 feet.
(3) Core size desired - minimum 1-7/16' diameter.
(4) Drill sites - to be prepared by Owner at no expense to the Longyear Company; minimum room for 20 ft. pulls guaranteed.
(5) Water and air to be supplied to drill sites by Owner at no expense to the Longyear Company.
(6) Formations to be drilled - limestone, shale, porphyry and minor amounts of quartzite.

B. Surface Drilling:
(1) Operating schedule - work to start approximately August 15, 1965; minimum of one rig operating two shifts per day, six days per week.
(2) Number, depth and angle of holes - minimum of 14,000 feet in vertical and angle holes (inclination not to be flatter than 70 degrees as measured from the horizontal), to total depths ranging from 50 to 1000 feet.
(3) Core size desired - that obtained with BQ-size wire line equipment.
(4) Drill sites - all sites accessible to truck-mounted rigs.
(5) Water supply - water available within maximum distance of 1500 ft. of any drill site, or may have to be hauled.
(6) Formations to be drilled - limestone, shale, porphyry and minor amounts of quartzite.

3. For this project we propose to furnish equipment as follows: underground work - one air-powered,skid-mounted Longyear drill rig; surface work - one truck-mounted Longyear drill rig.

We further propose to furnish BQ wire line coring tools, together with the necessary accessory equipment required to complete the work as now planned, and to operate the equipment as set forth under Paragraph 2.A.(1) and B.(1) above.

4. We will carry public liability insurance covering personal injury and property damage, and Workmen's Compensation insurance, and also all-risk insurance on the drilling equipment protecting against loss by theft, fire, flood, landslides and other similar hazards. Certificates showing the coverage referred to will be furnished upon request.

5. Based upon conditions as outlined above, and as set forth in your letter of March 10, 1965, we are pleased to quote as follows:

A. Underground drilling -

BQ Wire Line Recovering 1-7/16"Size Core

(1) Diamond core drilling --
0 to 500 feet in depth----------$6.45 per foot
500 to 600 feet in depth----------$6.95 per foot

(2) Reaming for casing, if and when required - $ 2.60 per foot

(3) Cementing, waiting for cement to set, and drilling out cement---------- $10.50 per hour, plus cost of materials used.

(4) Moving, rigging up and rigging down, inserting and pulling casing---------- $ 9.20 per hour

(5) Delays for your convenience or for which you are responsible---------- $ 9.20 per hour

It is further understood and agreed that you will provide, at no expense to the Longyear Company, the following items:

Compressed air and water in sufficient volume, and at sufficient pressure to permit the drilling operations to be carried out in an efficient and workmanlike manner;

Facilities for moving equipment from the collar of the shaft to the first drill hole location, from one drill hole location to another, and return to the collar of the shaft upon completion of the work;

Proper lighting and ventilation, if necessary, at each drill station.

B. Surface Drilling -

(1) Overburden drilling - 0 to 50 ft. in depth ----------$6.65 per foot

(2) Diamond core drilling - employing BQ wire line tools recovering core 1-7/16" in diameter --
Top of Ledge to 500 ft. in depth------$6.60 per foot
500 to 1000 feet in depth----------$6.90 per foot

(3) Reaming for casing if and when required----$ 2.60 per foot, plus reimbursement at our cost, f.o.b. jobsite for all casing or pipe left in hole at your request or lost in hole at your request or lost in hole through normal drilling operations;

(4) Cementing waiting for cement to set, and drilling out cement----------$11.95 per hour, plus cost of cement used.

(5) Delays for your convenience or for which you are responsible----------$10.50 per hour

(6) Drill mud and additives - will be invoiced to you at our cost, f.o.b. jobsite.

(7) Tank-truck service - should it become necessary to furnish a truck in order to keep the drill amply supplied with water, it is understood and agreed that Longyear would be reimbursed for the resultant extra expense at the rate of $325.00 per month, plus 15¢ per mile for each mile water truck is used.

6. Drill cores will be turned over to your representative at the drill sites in receptacles furnished by Owner.

7. Statements covering the work performed will be prepared as promptly as possible after the first of each month, and payment will be due within twenty days after receipt of invoice.

8. We are pleased to have the opportunity to consider this project. If our proposal is accepted, we would be prepared to commence the work in accordance with the schedule set forth under Paragraph 2 above, provided that satisfactory arrangements have been made with our Contract Drilling Division for financing the work to assure payment of our invoices.

Sincerely,

E. J. LONGYEAR COMPANY

M. J. Gleason

Vice President - Contract Drilling

MJGleason:APW:bal

ACCEPTED:
MR. TOM F. MILLER

By:_____

Date:_____

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
TUNNEL DRIVING
MINE PLANT DESIGN
AND FABRICATION

**Boyles Bros.**
**DRILLING COMPANY**

CONTRACTORS-ENGINEERS-GEOLOGISTS
General Offices and Plant
1624 Pioneer Road P. O. Box 58 HUnter 7-7595
SALT LAKE CITY 10, UTAH

BRANCH OFFICES
PHOENIX
RENO
SPOKANE
DENVER
SACRAMENTO
ST. LOUIS

March 25, 1965

Reply to:

Mr. T.F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

Dear Sir:

This is our bid, priced as recommended by E.D. Willden, for drilling your property near Oakley in northwestern Utah.

Proposal #1 - Surface

| A. Coring: | NX | BX | AX |
|---|---|---|---|
| 0 --250 ft. @ | $7.00 | $6.75 | $6.50 |
| 250 - 500 ft. @ | 7.25 | 7.00 | 6.75 |
| 5 00 - 750 ft. @ | 7.50 | 7.25 | 7.10 |
| 750 - 1000 ft. @ | 8.00 | 7.75 | 7.65 |

B. Reaming, if required, $3.75 per ft., all sizes.
C. Cement or drilling cement $14.00 per hour, plus cost of cement or cement substitutes.
D. Boyles will furnish 1500' of water line and pump, installing of same will be charged for at $12.00 per hour.
E. Mud and additives, if used, would be charged for at list cost.
F. Casing left by request, or we were unable to recover, would be charged for at list cost, less 10%.
G. Bit cost that exceeds .70¢ per ft., would be charged for as shown by supplier's cutout sheets.
H. Delay requested or caused by owner would be charged for at $12.00 per hour.
I. #6 of your proposal will be in effect for the above, as to drill stations & access roads, with no charge to Boyles Bros.

Proposal #2 - Underground

| 1. Coring: | NX | BX | AX |
|---|---|---|---|
| 0 - 250 ft. @ | $6.70 | $6.30 | $6.00 |
| 250 - 500 ft. @ | 7.00 | 6.50 | 6.20 |
| 500 - 750 ft. @ | 7.20 | 6.80 | 6.50 |
| 750 - 1000 ft. @ | 7.50 | 7.20 | 7.10 |

2. Reaming, all sizes, $3.75 per ft.

Mr. T.F. Miller
Salt Lake City, Utah

March 25, 1965
Page 2.

Proposal #2 - continued

3. Cementing or drilling cement at $12.00 per hour, plus cement or cement substitutes.
4. Mud or additives, if used, at list price.
5. Casing left by request, or we are unable to recover, at list price, less 10%.
6. Bit cost that exceeds .70¢ per ft., would be charged for as shown by our supplier's cutout sheet.
7. Delay, requested or caused by owner, would be charged for at $12.00 per hour.
8. Air & stations will be furnished with no charge to Boyles as stated in #6 of your proposal.
9. If other work is required, such as timbers, digging sumps, etc., this would be a charge item at $12.00 per hour, for a 2 man crew.

We would bring in trailer and stay at job site and work 6 days per week. After getting started we would add another shift, if you wanted it. The above prices in both proposals cover mobilization and demobilization, also trailers.

After 30 days, we would review the cost with you and if any adjustment were indicated in prices, we would make an agreement to the best advantage of both parties.

Thank you for considering us on this work. If there are any questions about this proposal please feel free to call, or any other help we may be able to offer.

If these proposals would meet with your approval, we would appreciate as much advance notice as possible to set up our inventory and drill crews.

Very truly yours,

J. F. Brennan

J.F. Brennan
Field Supt., Drilling Division

JFB:gh

# Christensen Diamond Products Company

## DIAMOND DRILL BITS & SUPPLIES

P. O. BOX 387 — 1937 SOUTH SECOND WEST — TELEPHONE 484-5231 — SALT LAKE CITY, UTAH 84110 U. S. A.

CABLE ADDRESS: CHRISDIACO

# QUOTATION

File: M-511

Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah

Page One.

Date May 6, 1965

Terms of Sale Net 30 Days

Shipping Terms FOB Salt Lake City

Thank you for your ..... We are pleased to quote as follows

| ITEM | QUANTITY | PART NUMBER | DESCRIPTION | UNIT PRICE | TOTAL PRICE | NET WEIGHT | GROSS WEIGHT | CUBIC FEET |
|---|---|---|---|---|---|---|---|---|
| 1 | 1 | X-14589 | Overshot, complete | | 125.00 | | | |
| 2 | 1 | C-8002 | BX Wireline core barrel complete with 1 inner tube, inner tube shoe, reaming shell blank, core lifter spring and protector sub, 10 ft. | | 300.00 | | | |
| 3 | 1 | A-8002.1 | BX wireline extra inner tube assembly including latch assembly, bearing assembly, inner tube, core lifter spring and inner tube shoe. | | 225.00 | | | |
| 4 | 1 | | $BXC^3$ balance shell, type 29627 Hard Faced<br>Setting charge 32.00<br>B grade diamonds 6.50 carats @ 8.25 53.63 | | 85.63 | | | |
| 5 | 1 | * | BX $C^3$ core bit, type 27913<br>Set with approximately 14.50 carats 25 stones per carat diamond size<br>A grade diamonds 14.50 carat @ 11.25 163.13<br>Setting charge 19.00 | Approx. | 182.13 | | | |
| 6 | 1 | | BX $C^3$ core bit type 4673<br>Set with approximately 11.50 carats 40 stones per carat diamond size.<br>A grade diamonds 11.50 carat @ 11.25 129.38<br>Setting charge 19.00 | Approx. | 148.38 | | | |

DELIVERY DATE APPROXIMATELY.....

CHRISTENSEN DIAMOND PRODUCTS COMPANY

Prices quoted, valid for ..... days.
Delivery date is contingent upon availability of materials at time of order.

By.....

SD-224 Rev. 1 4-64 Q.P.

# Christensen Diamond Products Company

## DIAMOND DRILL BITS & SUPPLIES

P. O. BOX 387 1937 SOUTH SECOND WEST TELEPHONE 484-5231 SALT LAKE CITY, UTAH 84110 U. S. A.

CABLE ADDRESS: CHRISDIACO

# QUOTATION

File: M-511

Thomas F. Miller

Page Two.

Date May 6, 1965

Terms of Sale

Shipping Terms

Thank you for your ..... We are pleased to quote as follows

| ITEM | QUANTITY | PART NUMBER | DESCRIPTION | UNIT PRICE | TOTAL PRICE | NET WEIGHT | GROSS WEIGHT | CUBIC FEET |
|---|---|---|---|---|---|---|---|---|
| 7 | 1 | BXWL534.1 | BX WL Drill Rod, 4 threads per inch, 1 foot | | 21.60 | | | |
| 8 | 1 | BXWL534.2 | BX WL Drill Rod, 4 threads per inch, 2 feet | | 22.45 | | | |
| 9 | 1 | BXWL534.3 | BX WL Drill Rod, 4 threads per inch, 3 feet | | 23.30 | | | |
| 10 | 1 | BXWL534.5 | BX WL Drill Rod, 4 threads per inch, 5 feet | | 25.00 | | | |
| 11 | 1 | BXWL534.10 | BX WL Drill Rod, 4 threads per inch, 10 feet | | 29.25 | | | |
| 12 | 1 | BXWL534.20 | BX WL Drill Rod, 4 threads per inch, 20 feet | | 39.25 | | | |

DELIVERY DATE APPROXIMATELY Core barrel and equipment 4 weeks, Bits 1 week.

Prices quoted, valid for 60 days.

Delivery date is contingent upon availability of materials at time of order.

SD-224 Rev. 1 4-64 Q.P.

CHRISTENSEN DIAMOND PRODUCTS COMPANY

By John A. Belden, Jr.

JOHN A BELDEN, JR.

# Christensen Diamond Products Company

## DIAMOND DRILL BITS & SUPPLIES

P. O. BOX 387 1937 SOUTH SECOND WEST TELEPHONE 484-5231 SALT LAKE CITY, UTAH 84110 U. S. A.

CABLE ADDRESS: CHRISDIACO

## QUOTATION

File: M-512

Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah

Date May 6, 1965

Terms of Sale Net 30 Days

Shipping Terms FOB Salt Lake City

Thank you for your ..... We are pleased to quote as follows:

| ITEM | QUANTITY | PART NUMBER | DESCRIPTION | UNIT PRICE | TOTAL PRICE | NET WEIGHT | GROSS WEIGHT | CUBIC FEET |
|---|---|---|---|---|---|---|---|---|
| 1 | 1 | C-6004-10 | BX $D^3$ Core Barrel complete with core lifter, less shell and bit | | 136.50 | | | |
| 2 | 1 | | BX $D^3$ Hard Faced balance shell type 26120 | | | | | |
| | | | Setting charge 29.00 | | | | | |
| | | | B grade diamonds 6.50 cts @ 8.25 53.63 | | 82.63 | | | |
| 3 | 1 | | BX $D^3$ Core Bit, Type 13556 | | | | | |
| | | | Set with approximately 11.50 cts 25 stones per carat diamond size | | | | | |
| | | | A grade diamonds 11.50 cts @ 11.25 129.38 | | | | | |
| | | | Setting charge 17.50 | Approx. | 146.88 | | | |
| 4 | 1 | | BX $D^3$ core bit, type 27724 | | | | | |
| | | | Set with approximately 11.00 cts 40 stones per carat diamond size | | | | | |
| | | | A grade diamonds 11.00 carats @ 11.25 123.75 | | | | | |
| | | | Setting charge 17.50 | Approx. | 141.25 | | | |
| 5 | 1 | A-15915 | BW Drill Rod, coupling 1 foot | | 19.65 | | | |
| 6 | 1 | A-15916 | BW Drill Rod with coupling 2 feet | | 21.30 | | | |
| 7 | 1 | A-15917 | BW Drill Rod with coupling 5 feet | | 29.35 | | | |
| 8 | 1 | A-15918 | BW Drill Rod with coupling 10 feet | | 32.15 | | | |

DELIVERY DATE APPROXIMATELY Core barrel & bit 1 week, drill rod 2 weeks

Prices quoted, valid for 60 days.
Delivery date is contingent upon availability of materials at time of order.

SD-224 Rev. 1 4-64 Q.P.

CHRISTENSEN DIAMOND PRODUCTS COMPANY

By John A. Belden Jr.

JOHN A BELDEN, JR.

## UNDERGROUND DRILLING

Total footage--9500' of "BX", "BX" Wireline--core 1 3/8" size

Estimate 30' per 8 hour shift (this equals one man shift)

9500' ÷ 30' = 317 man shifts x 8 hours a shift = 2536 hours

It will take $2\frac{1}{4}$ hours of supervision for each man shift worked or $2\frac{1}{4}$ hours x 317 man shifts = 713 hours.

Underground core drilling

### SUMMARY

| | | |
|---|---|---|
| Sec. (a) | ---------None--------- | $------ |
| Sec. (b) | Personal Services | 25,913 |
| Sec. (c) | Materials and Supplies | 24,826 |
| Sec. (d) | Equipment | 3,429 |
| Sec. (e) | ---------None--------- | ------ |
| Sec. (f) | ---------None--------- | ------ |
| Sec. (g) | Miscellaneous | 5,574 |
| | TOTAL COST ---------- | $59,742 |

Price per foot

$59,742 ÷ 9500' = $6.29 per foot

Note: Drill mud and additives are not included in the price per foot. However, if required, they will be added at cost.

(a)

None

(b) PERSONAL SERVICES

| | No. Required | Rate/hr. | Total Hrs. | Total Cost |
|---|---|---|---|---|
| Supervisor | 1 | $7.00 | 713 | $4991 |
| Driller | 1 | 4.50 | 2536 | 11412 |
| Helper | 1 | 3.75 | 2536 | 9510 |
| | Total Personal Less P.T. & I. | | | $25,913 |

The above services are available from brother-in-law and wife's uncle.

Both of the above have spent time doing manual labor, such as truck driver, carpentry work, dam construction, and road construction.

Jack Powers, an experienced core driller from Joy Manufacturing Co., of the Salt Lake City office, will spend some time on the site training these men.

Periods of employment: For the drillers, it will be approximately 12 months. This is based on a 21 day, 168 hour month.

TOTAL FOR SECTION (b) $25,913

## (c) OPERATING MATERIALS AND SUPPLIES

| Item | Description | Unit | Qty | Price/ea. | Total Cost |
|---|---|---|---|---|---|
| "BX" Diamond bits | Christensen "A" grade 14.50 carat | ea. | 81 | $188.50 | $15,269.00 |
| "BX" Reaming shell | | ea. | 2 | 100.25 | 200.50 |
| "BX" Wireline core barrel | Joy | ea. | 1 | 362.50 | 362.50 |
| Hi-pressure hose with connectors | 25' from pump to drill | ea. | 2 | 235.00 | 470.00 |
| Foot valve | strain water | ea. | 2 | 27.50 | 55.00 |
| "BX" Drill rod | "BX"-WL-4 threads per inch 10' length | foot | 600' | 3.03 | 1818.00 |
| "BX" Drill rod | "BX"-WL-4 threads per inch 5' length | foot | 600' | 5.18 | 3108.00 |
| Oil | for drill and pump, rock drill type | gal. | 325 | 1.87 | 607.75 |
| Gasoline | for truck | gal. | 656 | .34 | 223.00 |
| Oil | for truck | qt. | 15 | .65 | 9.75 |
| Miner's lamp | Miner's electric #5100 G1 | ea. | 2 | 38.81 | 77.62 |
| Lamp charger | individual | ea. | 2 | 25.87 | 51.74 |
| Diesel fuel | for compressor | gal. | 9000 | .18 | 1620.00 |
| Oil | for compressor | qt. | 30 | .60 | 18.00 |
| Gasoline | for generator | gal | 1350 | .34 | 459.00 |
| Oil | for generator | qt. | 15 | .60 | 9.00 |
| Air hose | for pump & drill | ea. | 2 | 189.46 | 378.92 |
| Air hose oiler | oils drill & pump | ea. | 2 | 31.00 | 62.00 |
| Air hose fittings | spuds, clamps | lot | 3 | 10.50 | 31.50 |
| | TOTAL FOR SECTION (c) | | | | $24,826 |

## (d) OPERATING EQUIPMENT

All of the equipment will be purchased by myself and depreciated as outlined below. I have looked at and priced equipment at many suppliers. In many instances I have received quotations which I will enclose at the end of this section. I intend to buy the equipment at the quotation prices given to me by the supplier.

It is estimated that the underground diamond drilling will take the equivelent of 12 months to complete.

| Item | Cost | Salvage | Base | Type of Deprec. | No. of Years | Month. Deprec. | Annual Deprec. |
|---|---|---|---|---|---|---|---|
| Joy 12B diamond drill (used) | $3500 | $100 | $3400 | S.L. | 2 | $142 | $1700 |
| | Total depreciation for the project is 12 months x $142 per month = $1700 | | | | | | |
| Water pump for drill (used) | $1040 | $20 | $1020 | S.L. | 2 | $42.50 | $510 |
| | Total depreciation for the project is 12 months x $42.50 per month = $510 | | | | | | |
| Safety clamp (new) | $150 | $10 | $140 | S.L. | 2 | $5.83 | $70 |
| | Total depreciation for the project is 12 months x $5.83 per month = $70 | | | | | | |
| Water swivel (new) | $150 | $10 | $140 | S.L. | 2 | $5.83 | $70 |
| | Total depreciation for the project is 12 months x $5.83 per month = $70 | | | | | | |
| 600 CFM compressor (used) | $10,600 | $100 | $10,500 | S.L. | 3 | $292 | $3500 |
| | Total depreciation for the project is 2 months x $292 per month = $584 | | | | | | |
| Blower I-21 Joy 5 HP | $440 | $20 | $420 | S.L. | 3 | $11.70 | $140 |
| | Total depreciation for the project is 2 months x $11.70 per month = $23.40 | | | | | | |

| Item | Cost | Salvage | Base | Type of Deprec. | No. of Years | Month. Deprec. | Annual Deprec |
|---|---|---|---|---|---|---|---|
| Water pump | $150 | $10 | $140 | S.L. | 2 | $5.80 | $70 |
| | Total depreciation for the project is 2 months x $5.80 per month = $11.60 | | | | | | |
| Timber car | $62 | $5 | $57 | S.L. | 3 | $1.58 | $19 |
| | Total depreciation for the project is 2 months x $1.58 per month = $3.16 | | | | | | |
| Generator 7.5 KW (new) | $794 | $25 | $769 | S.L. | 5 | $12.80 | $154 |
| | Total depreciation for the project is 2 months x $12.80 per month = $25.60 | | | | | | |
| Pick-up truck 1-ton Dodge Power Wagon | Total depreciation for the project is 15% of $2882 = $432 | | | | | | |

TOTAL FOR SECTION (d) $3429

(e)

None

(f)

None

(See Section on Building)

(g) REPAIRS AND MAINTENCE

| Item | Repair Cost | Maintence in total hrs. | Rate per Main. Hrs. | Total Main Cost | Total Cost |
|---|---|---|---|---|---|
| Drill Joy 12B | $425 | 50 | $4.50 | $225.00 | $650.00 |
| Drill pump | 325 | 25 | 4.50 | 112.50 | 437.50 |
| Compressor | 342 | 100 | 4.50 | 450.00 | 792.00 |
| Blower | 15 | 10 | 4.50 | 45.00 | 60.00 |
| Water pump | 10 | 10 | 4.50 | 45.00 | 55.00 |
| Generator | 16 | 8 | 4.50 | 36.00 | 52.00 |
| Truck | 45 | | | | 45.00 |
| | | 203 | | | $2091.00 |

ACCOUNTING AND SECRETARIAL

It is estimated that it will take 312 accounting and secretarial hours for this effort.

| Hours | Rate per Hour | Total Cost |
|---|---|---|
| 312 | $2.50 | $780 |

## PAYROLL TAXES AND INSURANCE

**Workman's Compensation**

Utah rate is 3.16% of $1.00 or .0316

**Unemployment Insurance**

Utah rate is 2.7% of $1.00 or .0270

**F.I.C.A.**

Rate that must be paid on employee is 3 5/8% of $1.00 .03625

.09485

or

Employee P.T. & I. rate----9.49%

Employer F.I.C.A. rate is 1½ times employee rate,

or 1½ x 3 5/8% of $1.00 or .0544

| | |
|---|---|
| Workman's compensation | .0316 |
| Unemployment Insurance | .0270 |
| F.I.C.A. | .0544 |
| | .1130 |
| | or |
| Employer P.T. & I. rate---11.3% | |

**Total Payroll Taxes and Insurance** (Ref. 7 (b) and (g) for hours)

| Item | Rate per Hour | | Tax & Ins. Rate | | Total Rate per Hour | | Total Hours/ | | Total P.T. & I. |
|---|---|---|---|---|---|---|---|---|---|
| Supervisor | $7.00 | x | 11.3% | = | .79¢ | x | 713 | = | $ 563.00 |
| Driller | 4.50 | x | 9.49% | = | .43¢ | x | 2536 | = | 1090.00 |
| Helper | 3.75 | x | 9.49% | = | .36¢ | x | 2536 | = | 913.00 |
| Maintence Labor | 4.50 | x | 9.49% | = | .43¢ | x | 203 | = | 87.00 |
| *Accountant Secretary | 2.50 | x | 6.33% | = | .16¢ | x | 312 | = | 49.90 |

Total P.T. & I.----------$2703.00

*Accountant-secretary taxes and insurance will not include workman's compensation insurance. This liability will be covered by employee-paid medical insurance. Therefore tax and insurance computation is as follows:

Unemployment Insurance and F.I.C.A. .06325

TOTAL FOR SECTION (g) $5574

## UNDERGROUND DIAMOND DRILL STATIONS

It will take approximately 14 major underground drill stations. It is estimated that it will take 21 shifts to make the 14 stations, or one man month.

21 shifts x 8 hours a shift = 168 hours

It will take $2\frac{1}{4}$ hours of supervision for each man shift worked, or $2\frac{1}{4}$ hours x 21 man shifts = 47 hours.

(See station plan on next page)

### SUMMARY

| | | |
|---|---|---|
| Sec. (a) | ---------None--------- | $------ |
| Sec. (b) | Personal Services | 2537 |
| Sec. (c) | Materials and Supplies | 3743 |
| Sec. (d) | Equipment | 658 |
| Sec. (e) | ---------None--------- | ------ |
| Sec. (f) | ---------None--------- | ------ |
| Sec. (g) | Miscellaneous | 690 |
| | TOTAL COST ---------- | $7628 |

Cost per station (timbered)

$7628 ÷ 14 = $544.85 per station

Underground drill sites

(a)

None

(b) PERSONAL SERVICES

| | No. Required | Rate/ Hour | Total Hours | Total Cost |
|---|---|---|---|---|
| Supervisor | 1 | $7.00 | 47 | $329 |
| Engineer (covered in supervision above) | | | | |
| Miners | 2 | 5.67 (no timber) | | |
| | | .90 (extra for timber) | | |
| | | $6.57 | 336 | 2208 |

Total Personal Services Less P. T. & I.----------$2537

The above services are available providing I can get started before school starts so Jim and Rich will not have to shift their children.

Period of employment for miners will be 1 month. This is based on a 21 day, 168 hour month.

TOTAL FOR SECTION (b) $2537

## (c) OPERATING MATERIALS AND EQUIPMENT

| Item | Description | Unit | Qty | Price/ea. | Total Cost |
|---|---|---|---|---|---|
| Rock bits | 1 3/8" Liddicoat throw away | ea. | 32 | $ 4.95 | $ 158.00 |
| Drill steel | 7/8" Hex x 4¼" | ea. | 24 | 19.41 | 465.00 |
| Dynamite | 40% Gelatin | 100#/box | 39 boxes | 30.22 | 1178.00 |
| Caps | fuse type non-electric | 100/box | 10 boxes | 3.00 | 30.00 |
| Fuse | cap-ignition | ft. | 11,000' | 2¢ | 220.00 |
| Spitter cord | fuse ignition | ft. | 20,000' | 1.6¢ | 320.00 |
| Connectors | for spitter cord | 100/box | 10 boxes | 2.10 | 21.00 |
| Timber | posts & caps 8" x 8"--req. lengths | bd/ft | 6700' | $110/M | 737.00 |
| | lagging over caps 3" x 12" req. lengths | bd/ft | 2700' | $110/M | 297.00 |
| | blocking for sets | bd/ft | 500' | $110/M | 55.00 |
| Diesel fuel | for compressor | gal. | 1200 | .18 | 216.00 |
| Oil | for compressor | qt. | 15 | .60 | 9.00 |
| Gasoline | for generator | gal. | 100 | .34 | 34.00 |
| Oil | for generator | qt. | 5 | .60 | 3.00 |
| | | | | | $3743.00 |

TOTAL FOR SECTION (c) $3743.00

## (d) OPERATING EQUIPMENT

All of the equipment will be purchased by myself and depreciated as outlined below. I have looked at and priced equipment at many suppliers. In many instances I have received quotations which I will enclose at the end of this section. I intend to buy the equipment at the quotation prices given to me by the suppliers.

It is estimated that the underground diamond drill cutout stations will take approximately 1 month to complete.

| Item | Cost | Salvage | Base | Type of Deprec. | No. of Years | Month. Deprec. | Annual Deprec. |
|---|---|---|---|---|---|---|---|
| 600 CFM compressor (used) | $10,600 | $100 | 10,500 | S.L. | 3 | $292 | $3500 |
| | Total depreciation for the project is 1 month x $292 per month = $292 | | | | | | |
| FL 63 Gardner Denver Jack Leg (new) | $1133 | $25 | $1108 | S S.L. | 3 | $31 | $369 |
| | Total depreciation for the project is 1 month x $31 per month = $31 | | | | | | |
| Eimco 12B mucker 24" gauge (used) | $2432 | $25 | $2407 | S.L. | 2 | $100 | $1204 |
| | Total depreciation for the project is 1 month x $100 = $100 | | | | | | |
| Motor 1½ ton Atlas | $4833 | $100 | $4733 | S.L. | 3 | $161 | $1577 |
| | Total depreciation for the project is 1 month x $161 = $161 | | | | | | |
| Blower I-21 Joy 5 HP | $440 | $20 | $420 | S.L. | 3 | $11.70 | $140 |
| | Total depreciation for the project is 1 month x $11.70 = $11.70 | | | | | | |
| Water pump | $150 | $10 | $140 | S.L. | 2 | $5.80 | $70 |
| | Total depreciation for the project is 1 month x $5.80 = $5.80 | | | | | | |

| Item | Cost | Salvage | Base | Type of Deprec. | No. of Years | Month Deprec. | Annual Deprec. |
|---|---|---|---|---|---|---|---|
| Mine cars 3-30 cu. ft. 24" gauge (used) | $855 | $25 | $830 | S.L. | 3 | $26 | $277 |
| | Total depreciation for the project is 1 month x $26 per month = $26 | | | | | | |
| Timber car | $62 | $5 | $57 | S.L. | 3 | $1.58 | $19 |
| | Total depreciation for the project is 1 month x $1.58 per month = $1.58 | | | | | | |
| Generator 7.5 KW (new) | $794 | $25 | $769 | S.L. | 5 | $12.80 | $154 |
| | Total depreciation for the project is 1 month x $12.80 per month = $12.80 | | | | | | |
| 2 500 gal. fuel tanks (used) | $275 | $10 | $265 | S.L. | 5 | $4.40 | $53 |
| | Total depreciation for the project is 1 month x $4.40 per month = $4.40 | | | | | | |
| Car switch (cherry picker) | $300 | $10 | $290 | S.L. | 2 | $12 | $145 |
| | Total depreciation for the project is 1 month x $12 per month = $12 | | | | | | |

TOTAL FOR SECTION (d) $658

(e)

None

(f)

None

(See section on Building)

(g) REPAIRS AND MAINTENCE

| Item | Repair Cost | Maintence in Total Hours | Rate per Main. Hrs. | Total Main. Cost | Total Cost |
|---|---|---|---|---|---|
| Compressor | $60.00 | 15 | $4.50 | $67.50 | $127.50 |
| FL 63 Jack Leg | 12.00 | 2 | 4.50 | 9.00 | 21.00 |
| Eimco 12B Mucker | 23.00 | 10 | 4.50 | 45.00 | 68.00 |
| Motor | 32.00 | 10 | 4.50 | 45.00 | 77.00 |
| Blower | 5.00 | 2 | 4.50 | 9.00 | 14.00 |
| Water pump | 5.00 | 2 | 4.50 | 9.00 | 14.00 |
| Mine cars | 7.00 | 3 | 4.50 | 13.50 | 20.50 |
| Generator | 5.00 | 2 | 4.50 | 9.00 | 14.00 |
| | | 46 hours | | | $356.00 |

## ACCOUNTING AND SECRETARIAL WORK

It is estimated that it will take approximately 90 hours for the accounting and secretarial effort for underground drill sites.

| Hours | Rate per Hour | Total Cost |
|---|---|---|
| 25 | $2.50 | $62.50 |

## PAYROLL TAXES AND INSURANCE

Workman's Compensation

Utah rate is 3.16% of $1.00 or .0316

Unemployment Insurance

Utah rate is 2.7% of $1.00 or .0270

F.I.C.A.

Rate that must be paid on employee is 3 5/8% of $1.00 or .03625

.09485

or

Employee P.T. & I. rate----------9.49%

Employer F.I.C.A. rate is 1½ times employee rate, or

1½ times 3 5/8% of $1.00 or .0544

| | |
|---|---|
| Workman's compensation | .0316 |
| Unemployment Insurance | .0270 |
| F.I.C.A. | .0544 |
| | .1130 |

or

Employer P.T. & I. rate----------11.3%

Total Payroll Taxes and Insurance (Ref. 7 (b) and (g) for hours)

| Item | Rate per Hour | | Tax & Ins. Rate | | Total Rate per hour | | Total Hours | | Total P.T. & I. |
|---|---|---|---|---|---|---|---|---|---|
| Supervisor | $7.00 | x | 11.3% | = | .79¢ | x | 47 | = | $ 37.00 |
| Miners | 6.57 | x | 9.49% | = | .62¢ | x | 336 | = | 208.00 |
| Maintence Labor | 4.50 | x | 11.3% | = | .51¢ | x | 46 | = | 23.46 |
| *Accountant Secretary | 2.50 | x | 6.33% | = | .16¢ | x | 25 | = | 4.00 |
| | | | | | | | | | $272.00 |

*Accountant-secretary taxes and insurance will not include workman's compensation insurance. This liability will be covered by employee-paid medical insurance. Therefore tax and insurance computation is as follows:

Unemployment insurance and F.I.C.A. .06325

TOTAL FOR SECTION (g) $690

## GEOLOGY

The geology section will include the time and cost for surface and underground mapping, core logging, gathering samples, and assaying.

Also included in this section is the cost of accounting and secretarial work pertaining to the geological functions.

## SUMMARY

| | | |
|---|---|---|
| Sec. (a) | ---------None--------- | $------ |
| Sec. (b) | Personal Services | 17,318 |
| Sec. (c) | ---------None--------- | ------ |
| Sec. (d) | ---------None--------- | ------ |
| Sec. (e) | ---------None--------- | ------ |
| Sec. (f) | ---------None--------- | ------ |
| Sec. (g) | Miscellaneous | 7,582 |
| | TOTAL COST ---------- | $24,900 |

Geology

(a)

None

(b) PERSONAL SERVICES

Geological Exploration Effort

The geological effort will consist of the following functions:

1. Making a detailed accurate surface map of the area and the surrounding area as may be related to local structure and mineralization. Plotting outcrops, strikes and dips, old mine workings, faults and joints, diamond drill holes, assayed data, and other appropriate geological data that pertains to the surface. The alidade and planetable method will be used for the surface mapping.

2. Underground map of the new tunnel and drift, and old workings to the extent they are accessible. A transit and Brunton compass will be used to do the underground mapping.

3. Drawing X-sections after diamond drill and drifting information is obtained and applying geological interpretations and analizations to them.

4. Diamond drill core logging. Log each core to show bed thickness, rock type, texture, color, compaction, and assay data. Also the structural interpretation and evaluation of each core. Correlate this data with other existing data.

5. Making an assay map. Plot all new assay data and existing data where appropriate.

6. Reports--required for OME and the project.

Geologist Hours Required per Function

| | Hours Req. | Rate/ Hour | Total Cost |
|---|---|---|---|
| Surface Mapping | | | |
| Geologist | 825 | $7.40 | $6105 |
| *Helper | 672 | 3.10 | 2083 |
| Underground Mapping | | | |
| Geologist | 215 | 7.40 | 1591 |
| X-Sections | | | |
| Geologist | 105 | 7.40 | 777 |
| Core-Logging | | | |
| Geologist | 650 | 7.40 | 4810 |
| Assay-Map | | | |
| Geologist | 84 | 7.40 | 622 |
| Reports | | | |
| Geologist | 96 | 7.40 | 710 |
| *Consultant Geologist | 40 | 15.50 | 620 |
| | 2642 | | $17,318 |

Availability of Above Services

I, Tom Miller, will do all of the gological work except the consulting work.

*For the consulting work I have in mind Dr. L. Stokes of the University of Utah. He has been ill lately and I have not been able to contact him. He is familar with the area.

*Helper--I am sure I can hire someone locally who is qualified, and train him to run the alidade and planetable for me.

TOTAL COST FOR SECTION (b) $17,318

(c)

None

(d)

None

(e)

None

(f)

None

(See Section on Building)

## (g) ACCOUNTING AND SECRETARIAL WORK FOR GEOLOGY

It is estimated that it will take 875 hours to do the accounting and secretarial work required for the geology.

| Hours | Rate per Hour | Total Cost |
|---|---|---|
| 875 | $2.50 | $2188 |

Total Accounting and Secretarial Effort $2188

## PAYROLL TAXES AND INSURANCE

Workman's Compensation

Utah Rate is 3.16% of $1.00 or .0316

Unemployment Insurance

Utah rate is2.7% of $1.00 or .0270

F.I.C.A.

Rate that must be paid on employee is 3 5/8% of $1.00 or .03625

.09485

or

Employee P.T. & I. rate----------9.49%

Employer F.I.C.A. rate is $1\frac{1}{2}$ times employee rate,

or $1\frac{1}{2}$ x 3 5/8% of $1.00 or .0544

| | |
|---|---|
| Workman's compensation | .0316 |
| Unemployment Insurance | .0270 |
| F.I.C.A. | .0544 |
| | .1130 |
| | or |
| Employer P. T. & I. rate---------- | 11.3% |

Total Payroll Taxes and Insurance (Ref. 7 (b) and (g) for hours)

| Item | Rate/Hour | | Tax & Ins. Rate | | Total Rate per Hour | | Total Hours | | Total P.T. & I. |
|---|---|---|---|---|---|---|---|---|---|
| Geologist | $7.40 | x | 11.3% | = | .84¢ | x | 1975 | = | $1659 |
| Geologist helper | 3.10 | x | 9.49% | = | .29¢ | x | 672 | = | 195 |
| *Accountant/secretary | 2.50 | x | 6.33% | = | .16¢ | x | 875 | = | 140 |
| | | | | | | | | | $1994 |

*Accountant/secretary taxes and insurance will not include workman's compensation insurance. This liability will be covered by employee-paid medical insurance. Therefore tax and insurance is computed as follows:

Unemployment insurance and F.I.C.A. .06325

## ASSAYING

I estimate that at least 1200 assays should be made.

I have inquired at several assay shops and found that Black & Deason's price to be the most competitive at $2.00 for silver and gold. (Quotation enclosed)

1200 assays x $2.00 per assay = $3400

$2,400 ?

TOTAL FOR SECTION (g) $7582

B. W. DEASON
M. G. DEASON
V. E. WORSLEY

BLACK & DEASON
ASSAYERS AND CHEMISTS
165 SOUTH WEST TEMPLE STREET
P. O. Box 1888
SALT LAKE CITY 10, UTAH

April 27, 1965

Thomas F. Miller
2112 Westminister Avenue
Salt Lake City, Utah

Dear Mr. Miller:

Our charge for gold and silver on hand samples is $2.00 per sample. If the sample is over five pounds, we make a relatively small charge for grinding it.

Our price card is enclosed.

Yours truly,

BLACK AND DEASON

B. W. Deason

B. W. Deason

BWD:saj
Enclosures

# BLACK & DEASON

ASSAYERS & CHEMISTS

Box 1888

165 South West Temple Street

Salt Lake City 10, Utah

Price List Sept. 1, 1960

## HAND SAMPLE ASSAYS

| | |
|---|---|
| Gold | $2.00 |
| Gold and Silver | 2.00 |
| Lead | 1.00 |
| Copper | 1.00 |
| Zinc | 1.00 |

---

| | |
|---|---|
| Aluminum | 3.00 |
| Antimony | 3.00 |
| Arsenic | 3.00 |
| Barium | 4.00 |
| Bismuth | 4.00 |
| Cadmium | [redacted] 6.00 |
| Chromium | 4.00 |
| Cobalt | 5.00 |
| Copper | 1.00 |
| Iron | 1.00 |
| Insoluble | 1.00 |
| Lead | 1.00 |
| Lime | 1.00 |
| Magnesium | 3.00 |
| Manganese | 2.00 |
| Mercury | 3.00 |
| Molybdenum | 3.00 |
| Nickel | 3.00 |
| Phosphorus | 3.00 |
| Platinum | 5.00 |
| Potassium | 5.00 |
| Silica | [redacted] 4.00 |
| Spectrographic Analysis | 10.00 |
| Sulphur | 1.00 |
| Thorium | 15.00 |
| Tin | 4.00 |
| Titanium | 5.00 |
| Tungsten | 4.00 |
| Uranium | 5.00 |
| Vanadium | 3.00 |
| Zinc | 1.00 |

## MISCELLANEOUS

This section includes the required buildings, truck, and dozer work.

## SUMMARY

| | | |
|---|---|---|
| Sec. (a) | Catapillar Work ? | $1200 |
| *Sec. (d) | Truck | <4734> |
| Sec. (f) | Buildings | 4374 |
| | TOTAL COST ---------- | $5574 |

*The cost for depreciating, repair, and maintence of the truck is covered in the tunneling and drifting, surface and underground diamond drilling. Therefore it is not added in this. The only reason that it appears in this section is to show how depreciation, repairs, and maintence were computed.

Miscellaneous

## (a) CAT WORK

It is estimated that it will take approximately 120 hours of Catapillar work to put the access road in shape, blade out a tunnel site, and level off some diamond drill sites. Approximately 80 of the hours would be required when the project starts and 40 hours for the road work and drill sites during the spring of 1966.

It was extremely difficult to get bids and/or quotations for the cat. I did not receive either in writing. However, I did receive four verbal quotations over the phone. They are as follows:

Quote #1 Fred Burquist Construction, Salt Lake City, Utah
D-7 Cat $20.00/hr. plus $.50 a mile for haulage.
This would amount to:

| | | |
|---|---|---|
| Cat $20 x 120 | = | $2400 |
| Transportation $.50 x 500 | = | 250 |
| | | $2650 |

Quote #2 Erickson Brothers, Salt Lake City, Utah
D-6 Cat $16.00/hr. plus travel
This would amount to:

| | | |
|---|---|---|
| Cat $16 x 120 | = | $1920 |
| Transportation $.50 x 500 | = | 250 |
| | | $2170 |

Quote #3 Michael Costello, Salt Lake City, Utah
Cat equivelent to D-6 $18.00/hr. plus transportation
This would amount to:

| | | |
|---|---|---|
| Cat $18 x 120 | = | $2160 |
| Transportation $.50 x 500 | = | 250 |
| | | $2410 |

Quote #4 Vern Coombs, Tremonton, Utah
D-4 Cat $10.00/ hr. no transportation
This would amount to:

| | | |
|---|---|---|
| Cat $10 x 120 | = | $1200 |
| Transportation | = | 000 |
| | | $1200 |

a. Cat

I have chosen Vern Coombs to do the work. He said that he probably would be available about July 1. The D-4 is slower, but I am confident it will do the job.

Catapillar would be:

| Hours | | Cost per Hour | | Total Cost |
|---|---|---|---|---|
| 120 | x | $10 | = | $1200 |

TOTAL FOR SECTION (a) $1200

Truck--1 ton Dodge Power Wagon, Model W300 (new)

The truck will be used for the transportation of various supplies such as tools and fuel from Oakley, Idaho. It will also be used to pull the diamond drill between surface drill sites; transport drill rods, and for transportation from Oakley to the mine site.

Depreciation Schedule

| Cost | Less Salvage | Base | Type of Depreciation | No. of Years | Annual Depreciation |
|---|---|---|---|---|---|
| $4424 | $100 | $4324 | S.L. | 3 | $1441 |

The truck will be used for two years and will be depreciated a total of $2882. For the two years that it will be used, it is estimated that 60% of the time ti will be used for the support of the underground exploration, with 45% applied toward the tunneling and drifting, and 15% applied toward the underground drilling. It is estimated that 40% of the time it will be used to support surface diamond drilling.

Depreciation as prorated per project

| | | |
|---|---|---|
| Tunneling and Drifting | 45% x $2882 = | $1297 |
| Underground Drilling | 15% x $2882 = | 432 |
| Surface Drilling | 40% x $2882 = | 1153 |
| | Total Depreciation---------- | $2882 |

The truck will be used a total of 35,000 miles over the two years, and will average about 8 miles to the gallon.

35,000 ÷ 8 = 4375 gal.

4375 gal x $.34 = $1488

100 qts oil x $.65 qt. = $65

GAS

| | | |
|---|---|---|
| Tunneling and Drifting | 45% x 4375 gal. = 1969 x $.34 = | $670 |
| Underground Drilling | 15% x 4375 gal. = 656 x $.34 = | 223 |
| Surface Drilling | 40% x 4375 gal. = 1750 x $.34 = | 595 |
| | 4375 | $1488 |

d. Truck

## OIL

| | | |
|---|---|---|
| Tunneling and Drifting | 45% x 100 Qts. = 45 qts. x $.65 = | $29 |
| Underground Drilling | 15% x 100 qts. = 15 qts. x $.65 = | 9.75 |
| Surface Drilling | 40% x 100 qts. = 40 qts. x $.65 = | 26 |
| | | $64.75 |

## TRUCK REPAIRS

| | | |
|---|---|---|
| Tunneling and Drifting | 45% x 300 = | $135 |
| Underground Drilling | 15% x 300 = | 45 |
| Surface Drilling | 40% x 300 = | 120 |
| | | $300 |

TOTAL TRUCK COSTS $4735

GLEDHILL DODGE INC.
1000 South Main - [illegible] 9-7655
Salt Lake City, Utah

Bid For [illegible]
Address [illegible] 12 12 [illegible]

Date 5-6-65
Attn.

| | | |
|---|---|---|
| TRUCK MODEL W 300 [illegible] | | 2489.49 |
| Front Tires 900 x 16 - 8 Ply 2.4 | | 68.40 |
| Rear Tires " " " " | | 79.80 |
| Spare Tire and Tube " " " | | 84.00 |
| Air Cleaner - Heavy Duty | | |
| Antifreeze yes | | |
| Arm Rest spare wheel | | 18.40 |
| Axle - Front Axle Size | | |
| Axle - Rear Axle Size | | |
| Booster Brakes yes | | 52.00 |
| Cab | | |
| Directional Signals | | |
| Engine - V8 yes | | 94.60 |
| Frame Reinforcements | | |
| Foam Seat yes | | 16.80 |
| Heater fresh air | | 43.00 |
| Increased Cooling | | |
| Mirror West coast jet | | 18.00 |
| Oil Filter | | |
| Radio | | |
| Springs - Front 1750 | | 3.00 |
| Springs - Back 4050 | | 19.25 |
| Tachometer | | |
| Transmission Hesper | | [illegible] |
| Jell winding [illegible] | | 5.80 |
| Winch & [illegible] | | 234.50 |
| Special Rear Bumper | | 77.00 |
| Sugar Hooks | | 56.00 |
| Dealer | | 100.00 |
| Total | | 3707.14 |
| Less Discount | | |
| Federal Tax | 341.34 | |
| Freight | 186.00 | |
| Service | 40.00 | |
| Total | | 4274.48 |
| Less Allowance On | | |
| Total | | |
| 3% Utah Sales Tax | 149.60 | 149.60 |
| License | | |
| TOTAL | | 4424.09 |

Gledhill Dodge, Inc.
By [illegible]

**CONDITIONS:**
The prices shown hereon are subject to change without notice and to all applicable taxes. In the event of an increase or decrease in price prior to shipment, we reserve the right to adjust our billing to conform to prices in effect at time of shipment. Delivery is subject to strikes, accidents, priority restrictions, or other conditions beyond our control.

## (f) NEW BUILDINGS

Three new buildings will be built.

(1) Building for explosive primers (caps)

(2) Building for dynamite

(3) Equipment, maintence, dry, and office building

### Building for Caps

**Size**

4' long x 6' high x 4' wide

**Cost**

**Material:**

Lumber--220 bd. ft. @ $86.40/M = $19.00

Labor---one man

| | Rate | | Tax & Ins. Rate | | Total per hr. | | Total Hours | | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| one man | $3.75 | x | 9.49% | = | $4.11 | x | 4 | = | $16.44 |

Total Building Cost $35.00 $2.20

### Dynamite Building

**Size**

10' long x 6' high x 10' wide

**Cost**

**Material:**

Lumber--600 bd. ft. @ $86.40/M. = $51.84

Labor--one man

| | Rate | | Tax & Ins. Rate | | Total per hr. | | Total Hours | | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| one man | $3.75 | x | 9.49% | = | $4.11 | x | 12 | = | $49.32 |

Total Building Cost $101.00 $1.00

f. Building.

## Equipment, Maintence, Dry, and Office Building

**Size**

48' long x 32' wide x 10' high with angle roof. Total floor space = 1536

**Use**

It will serve as a storage building for various supplies, diamond drill core, change house (dry), temporary office, and tool and equipment maintence shed, as well as a housing for the compressor.

**Cost**

**Material & Type**

Butler steel pre-fab (new)
$2.07 sq. ft. x 1356 sq. ft. = $3179

Plywood--24 sheets 3/4" x 4' x 8' @ $6.70/sheet = $160.80

Glass Insulation--$114/1000 sq. ft. = $364.00
(will take 3200 sq. ft)

Total Material Cost $3703.80

**Labor**

| | Rate | | Tax & Ins. Rate | | Total per hr. | | Total Hours | | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| 3 men one week | $3.75 | x | 9.49% | = | $4.11 | x | 120 | = | $493 |
| Supervision | 7.00 | x | 11.3% | = | 7.72 | x | 12 | = | 92 |
| | | | | Total Labor Cost | | | | | $585 |

Total Building Cost $4288.0

TOTAL COST FOR SECTION (f) $43

Originals for Figures
1 + 2 of the contract
OME 6452

DEFENSE MINERALS
EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

OFFICIAL BUSINESS

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

August 3, 1976

~~John T. Mullaney~~

Inadvertantly marked by H. Kirkemo 2/11/77.

Mr. ~~Thomas F. Miller, Director~~
~~Bannock Silver Mining Company~~
~~Box 267~~
~~Oakley, Idaho 83346~~
~~Vice President~~
~~Ruby~~

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

By the terms of the subject OME contract and the Certification of Possible Production dated April 28, 1969, all minerals mined or produced from June 14, 1966, to June 14, 1976, were subject to payment of royalty. As this period has expired, the Government according to its present records retains no claim or lien against the property subject to the contract or any future production therefrom. Therefore, we are closing our books and records on this contract.

Please advise Mr. P. A. Saunderson and C. R. B. Salter, president and secretary, respectively, of Bannock Silver Mining Company of this action, because both officials signed a Lien and Subordination Agreements document on February 25, 1965, for the OME contract. We do not have a current address for either individual.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo, Chief
Office of Minerals Exploration

cc:
DRF
MR Rdg.
OME Rdg.
OME Files
Mr. Kirkemo
Region III

HKirkemo/gpw

# United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

August 3, 1976

Memorandum

To: Branch of Financial Reports

From: Chief, Office of Minerals Exploration

Subject: Recording of Realized losses under OME contract

Write-off of the following realized losses is hereby authorized:

| Contract | Docket | Operator | Write-off |
|---|---|---|---|
| 2217 | OME-6490 | Pacific Mining Corporation | $34,508.25 |
| 2220 | OME-6452 | Thomas F. Miller | $46,116.95 |

Harold Kirkemo

Harold Kirkemo

cc:
DRF
MR Rdg.
OME Rdg.
OME Files
Mr. Kirkemo
Region II + III

HKirkemo/gpw

# United States Department of the Interior

GEOLOGICAL SURVEY
Denver Federal Center
Denver, Colorado 80225

IN REPLY REFER TO:

P. O. Box 25046 - Building 53 - MS 953



OFFICIAL COPY
O. M. E.
RECEIVED
AUG 3 1976

| INITIALS | CODE |
|---|---|
| HK | — |
| | |
| | |
| | |
| | |


July 30, 1976

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6542 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

An annual inspection was made on the subject property on July 1, 1976.

An OME contract was executed on June 14, 1966 to explore for silver-bearing ore bodies in favorable Paleozoic limestone formations underlying an unfavorable shale formation at the Vipont Mine in Box Elder County, Utah. The project work resulted in the discovery of ore grade material in two holes drilled down dip from a known ore body. The Operator estimated a probable 90,000 tons of ore averaging 20 ounces of silver per ton. A more conservative estimate of reserves by the Field Officer, Region III of 800 tons of indicated ore and about 30,000 tons of inferred ore seems more realistic. Certification was recommended on the basis of the ore discovered, and a certification of possible production was issued on April 28, 1969. The Government's lien for payment of royalties expired on June 14, 1976.

The Operator has done no additional exploration work since the completion of the OME contract, nor has there been any production. He has, however, had some mining companies show considerable interest in the property, namely Phelps Dodge Corporation. He indicates that they would be interested in a lease situation, but he wants to operate on his own.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

# United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

September 5, 1975

Mr. Daniel I. Cohen
Trans Am
D8 München 2
Landwehrstrasse 16/II
West Germany

Dear Mr. Cohen:

This is in reply to your letter of August 22, 1975, requesting our judgment of a report by Mr. William Rogers Wade on the Vipont Mine, Box Elder County, Utah, and our opinions on the development possibilities of the district where this mine is located, and on the qualifications of Mr. Wade.

As Federal employees and members of the U.S. Geological Survey, we are not permitted to offer advisory consulting services of the type requested. We suggest that you engage the services of a consulting geologist, and ask his advice on these matters.

Names and addresses of consultants appear in many of the trade and professional journals published in the United States, for example, Mining Engineering, Engineering and Mining Journal, and in the annual directories of professional societies such as the Society of Mining Engineers, AIME.

The "Certification of Possible Production Under an Exploration Contract," issued to Mr. Thomas F. Miller, April 28, 1969, upon conclusion of the OME project at the Vipont property, is a true copy of our letter to Mr. Miller.

I regret that we cannot be more helpful to you.

Sincerely yours,

Harold Kirkemo, Chief
Office of Minerals Exploration

Enclosure: Incoming mat'l
was returned to Cohen

cc:
DRF
MR Rdg.
OME Rdg.
OME Files - OME 6452
Mr. Kirkemo

HKirkemo/gpw

RECEIVED
U.S. GEOLOGICAL SURV
WASH. DIST. SECT
AUG 26 1975

TransAm GmbH
D 8 München 2
Landwehrstr. 16/II
Telefon (089) 55 26 21
Telex 5212049 tram d
Telegrammadresse:
AMTRANS München

NOTED
SEP 3 1975
GEOLOGIC
INQUIRIES GROUP

Neue Telefon-Nr. 591827
New Telephone No. 591827
Postscheckkonto München
Nr. 1050 - 802

TransAm GmbH, D 8 München 2, Landwehrstr. 16/II

United States Geological Survey
1200 South Eads Street
Arlington, Virginia 22202
USA

Attn.: Department of Ore Deposits - The State of Utah Regent Region

| Ihr Schreiben vom | Ihre Zeichen | Unsere Zeichen | Datum |
|---|---|---|---|
| | | Dic/Do | 22 Aug., 1975 |

Gentlemen:

We have been advised by Dr. Helmut Gudden of the Bavarian Geological State Office (Bayerisches Geologisches Landesamt, Prinzregentenstraße 28) to contact your office relative to making a determination of the value of the documents I enclose herewith. Please find enclosed with this letter a photo copy of a document entitled "Report of the Vipont Mine" by a Mr. William Rogers Wade of Oct., 1967. The second document enclosed is a letter from the United States Department of the Interior - Geological Survey division addressed to Mr. Thomas F. Miller.

We represent a German group of investors interested in prusuing a joint venture whereby the above referenced mine will be reopened and production resumed. We are well aware that your office cannot and would not make any determination as to the economical value of such an enterprise. Nevertheless, it is our understanding that you would pass review on the afore referenced report, and the qualifications of Mr. Wade himself.

Upon receipt of an answer from your office we would then be in a position to have a German geologist make an independent report on the situation. However, before we pursue such cost we would appreciate knowing the validity of the report and/or the region in which propose to develop the silver mine.

We would appreciate that you give this matter your primary concern and that an answer be forwarded to us as soon as convenient to you. Any fees or charges in relation to your services would also be taken care of according to your method of operation.

Thanking you in advance for the courtesy showing this application, I remain

Respectfully yours,

Daniel I. Cohen

# United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

OFFICIAL COPY
O. M. E.
RECEIVED
JUN 20 1972

| INITIALS | CODE |
|---|---|
| gla | 30 |
| AK | 20 |

IN REPLY REFER TO: Office of Minerals Exploration

June 13, 1972

Mr. Thomas F. Miller
President
Bannock Silver Mining Company
Box 267
Oakley, Idaho 83346

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

Copy to Region III

Form MME 63
(May 1970)

# REQUEST FOR INFORMATION ON CERTIFIED PROJECT OR PROJECT UNDER ROYALTY AGREEMENT

1. Since **June 22, 1971**, has there been a change in ownership, lease, or sublease? *If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before.* Yes ☐ No ☑

2. Since **June 22, 1971**, has there been any production from the land subject to the contract? Yes ☐ No ☑

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

| Purchaser *(name and address)* | Quantity | Value |
|---|---|---|
| | | |

B. If stockpiled awaiting sale, state quantity, grade, and location.

| Type | Quantity *(tons)* | Estimated Grade | Location |
|---|---|---|---|
| Ore | | | |
| Concentrates | | | |
| Other | | | |

3. Since workings *(see* , has any production been transported through *of contract)*? Yes ☐ No ☑

*If so, state quantity, value, and disposition of material.*

| Disposition of Material | Quantity | Value |
|---|---|---|
| | | |

Submitted by:

| | |
|---|---|
| *Name* Thomas F Miller | *Title* Director of Barnwood Lbrs Mng Co |
| *Address* Box 267 Oakley Idaho 83346 | *Date* 6/16/72 |

BANNOCK SILVER MINING CO.

November 2, 1971

Mr. Harold Kirkemo, Chief
Office of Minerals Exploration, U.S.G.S.
Interior Building
Washington, D.C. 20242

Re: OME Docket 6452
Thomas F. Miller, Vipont Property
Box Elder County, Utah
Contract 2220

Dear Sir:

Our auditors, S. E. Newman and Company, 905 Continental Bank Building, Salt Lake City, Utah, are engaged in an examination of our financial statements. In connection therewith, please confirm the balance due the Office of Minerals Exploration on their note at September 30, 1971, which was shown on our records as follows:

| | |
|---|---|
| Amount: | $ 46,120.20 |
| Interest rate: | 6 3/4% |
| Secured by: | Lien on the Vipont Property |
| Payable: | At 5% per-ton-net-smelter-return basis. If there is no production, there is no payments due. |
| Accrued interest: | $ 13,236.97 |

Please state in the space below whether or not this is in agreement with your records at that date. If not, please furnish any information you may have which will assist the auditors in locating the difference. After signing your reply, please mail directly to S. E. Newman and Company. An envelope is enclosed for your convenience.

Yours very truly,

Rice A. O'Donnell

---

S. E. Newman and Company: Certified Public Accountants
Continental Bank Building
Salt Lake City, Utah 84101

The above note of $46,120.20 and accrued interest of $13,236.97 due the Office of Minerals Exploration from the Bannock Silver Mining Co. agrees wit our records at September 30, 1971, with the following exceptions (if any):

Principal balance - $46,116.95

Accrued interest - $13,236.72

By Harold Kirkemo Signed OFFICE OF MINERALS EXPLORATION
Harold Kirkemo, Chief

# United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

IN REPLY REFER TO: Office of Minerals Exploration

June 14, 1971

Mr. Thomas F. Miller
President
Bannock Silver Mining Company
Box 267
Oakley, Idaho 83346

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

OFFICIAL COPY
M. E.
RECEIVED
JUN 28 1971

| INITIALS | CODE |
|---|---|
| gk | 120 |
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| | |
| | 220 |

Dear Mr. Miller:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

copy to R-III

Form MME 63
(May 1970)

# REQUEST FOR INFORMATION ON CERTIFIED PROJECT OR PROJECT UNDER ROYALTY AGREEMENT

1. Since August 28, 1970, has there been a change in ownership, lease, or sublease? *If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before.* Yes ☐ No ☒

2. Since August 28, 1970, has there been any production from the land subject to the contract? Yes ☐ No ☒

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

| Purchaser *(name and address)* | Quantity | Value |
|---|---|---|
| | | |

B. If stockpiled awaiting sale, state quantity, grade, and location.

| Type | Quantity *(tons)* | Estimated Grade | Location |
|---|---|---|---|
| Ore | | | |
| Concentrates | | | |
| Other | | | |

3. Since workings *(see* , has any production been transported through *of contract)*? Yes ☐ No ☐

*If so, state quantity, value, and disposition of material.*

| Disposition of Material | Quantity | Value |
|---|---|---|
| | | |

Submitted by:

| | |
|---|---|
| *Name* Thomas F. Miller | *Title* Vice Pres - Bunnock Silver Mng Co. |
| *Address* Box 267 Oakley Ida. 83346 | *Date* 22 June 1971 |

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 200

CHIEF'S COPY
JUN 21 1971
INITIALS | CODE
CWC 120 M
HK 120
220

June 18, 1971

Memorandum

To: Chief, Office of Minerals Exploration

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Transmitted herewith is the final field report on the above-stated subject.

William L. Emerick,
Assistant Chief,
Office of Minerals Exploration

FINAL FIELD REPORT - OME EXPLORATION PROJECT

By W. L. Emerick

June 18, 1971

1. OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Operator: Thomas F. Miller
2112 Westminister Avenue
Salt Lake City, Utah 84108

Property: Consisted of fifty-three (53) patented lode mining claims in sec. 31, T. 15 N., R. 17 W., secs. 6 and 7, T. 14 N., R. 17 W., sec. 36, T. 15 N., R. 18 W., and secs. 1 and 12, T. 14 N., R. 18 W., Salt Lake Meridian, Ashbrook mining district, Box Elder County, Utah. A map showing the area of these 53 claims was attached to the contract.

Ownership: The Operator was in possession of the claims under the terms of a Mining Lease, dated January 2, 1965, from Vipont Silver Mining Company, the owners.

2. Purpose of Project: The purpose of the project was to explore by non-core and diamond core drilling from surface sites for silver-bearing ore bodies in favorable Paleozoic limestone formations underlying an unfavorable shale formation.

3. Contract: Dated June 14, 1966, for a term of 18 months, later extended by amendment to 24 months.
Original contract amount - $78,800.00.
Government participation - 75 percent - $59,100.00.

Amendments - No. 1 - January 16, 1967, to suspend work under the contract for six months and to extend the time for completion of the work from 18 to 24 months.

No. 2 - June 5, 1967, to revise the cost of two items under the contract with no increase in the aggregate amount which the Government was required to contribute.

4. Project Work: Started June 22, 1966. Terminated August 13, 1968.

Final Fld. Report

| Cost Items | Authorized Units | Authorized Rate | Authorized Amount | Completed Units | Completed Amount |
|---|---|---|---|---|---|
| Mobilization and demobilization of one bulldozer | ----- | ----- | $100.00 | ----- | $98.00 |
| Bulldozing access roads and preparing drill sites | ----- | Various | $500.00 | ----- | $500.00 |
| Non-core and diamond drilling | 12,065 feet | Various | $64,790.00 | 9,384.4 feet | $49,531.36 |
| Supervisor-geologist-engineer | 13-1/4 months | $750.00/mo | $9,950.00 | 12 months | $9,000.00 |
| Outside geological consultant | 8 days | $75.00/day | $600.00 | 8 days | $780.00 |
| Cardboard core boxes | 400 boxes | $1.00/box | $400.00 | ----- | ----- |
| Sample bags | 300 bags | $0.10/each | $30.00 | ----- | ----- |
| Assaying, gold and silver | 300 samples | $3.00/sample | $900.00 | 300 samples | $900.00 |
| Consultant's travel expenses | 1,500 miles | $0.10/mile | $150.00 | ----- | ----- |
| Consultant's per diem | 8 days | $16.00/day | $128.00 | ----- | ----- |
| Payroll taxes, F.I.C.A., insurance | ----- | ----- | $1,000.00 | ----- | $429.90 |
| Accounting and office expenses | 8 months | $31.25/mo. | $250.00 | 8 months | $250.00 |
| Total Estimated Costs | | | $78,800.00 | (Rounded) | $61,489.26 |
| Government Participation @ 75% | | | $59,100.00 | | $46,116.95 |
| Paid to Operator | | | | | $46,116.95 |

The Government retained no equity in any of the materials used.

Effectiveness of the Work - The targets in each of the holes drilled were adequately explored and the work was effective in discovering mineralized material in two of the holes drilled near a known ore body. However, the work might have been more effective if the entire program of drilling had been completed.

Efficiency of Operation - Where badly fractured rock was encountered in the drilling operation, lost circulation, lost core and sludge, and mechanical breakdowns slowed progress of the work, but in the absence of these problems drilling progress was usually satisfactory.

5. Reports:

Operator's Final Report - An acceptable Final Report, supported by adequate maps and cross sections, was received on November 1, 1968.

Cost Review - A Report of Review was issued by the Office of Survey and Review in February 1968.

Final Audit - A final audit was not requested because no additional vouchers were submitted or paid after the Report of Review. The final voucher was paid on January 26, 1968.

Royalty Review - There was no production sold and no royalty was due the Government. A Royalty Review was not requested.

6. Project Results:

Discoveries - The project work resulted in the discovery of ore grade material in two holes drilled down dip from a known ore body. The Operator estimated a probable 90,000 tons of ore averaging 20 ounces of silver per ton on the basis of the two holes, but a more conservative estimate of reserves by the Field Officer, Region III, lowered these reserves to 800 tons of indicated ore and about 30,000 tons of inferred ore.

Certification - Certification was recommended on the basis of the ore discovered by the OME work and a Certification of Possible Production was issued on April 28, 1969. The Government's lien for payment of royalties expires on June 14, 1976, or when the total amount contributed by the Government is fully repaid with interest at the rate of 6-3/4 percent per annum, whichever occurs first.

Production

- There was no report of any ore produced or stockpiled as a result of the OME work on the date of this report.

Royalties

- No royalties were paid or due the Government.

7. Geologic Summary

- The ore deposits in the Vipont mine are replacements of a limestone near its contact with an overlying impervious shale. The ore bodies commonly parallel the bedding planes of the limestone on or near the crests of minor folds or in synclinal structures within the limestone formation. Ore minerals are argentite, native silver, and pyrargyrite, with minor amounts of sphalerite, galena, and chalcopyrite. The Vipont mine, during periods of intermittent production from 1873 through 1942, had a total known production of 180,000 tons of ore that yielded 83,027 ounces of gold and 3,423,470 ounces of silver. At one time the mine was the fifth largest producer of silver in the State of Utah.

BANNOCK SILVER MINING CO.

May 7, 1971

Docket

Mr. Harold Kirkemo, Chief
Office of Minerals Exploration, U.S.G.S.
Interior Building
Washington, D.C. 20242

Re: OME Docket 6452
Thomas F. Miller, Vipont Property
Box Elder County, Utah
Contract 2220

Dear Sir:

Our auditors, S. E. Newman and Company, 905 Continental Bank Building, Salt Lake City, Utah, are engaged in an examination of our financial statements. In connection therewith, please confirm the balance due the Office of Minerals Exploration on their note at September 15, 1970, which was shown on our records as follows:

| | |
|---|---|
| Amount: | $ 46,120.20 |
| Interest rate: | 6 3/4% |
| Secured by: | Lien on the Vipont Property |
| Payable: | At 5% per-ton-net-smelter-return basis. If there is no production, there is no payments due. |

Please state in the space below whether or not this is in agreement with your records at that date. If not, please furnish any information you may have which will assist the auditors in locating the difference. After signing your reply, please mail directly to S. E. Newman and Company. An envelope is enclosed for your convenience.

Very truly yours,

Rice O'Donnell

---

S. E. Newman and Company:

The above balance of $46,120.20 due the Office of Minerals Exploration from the Bannock Silver Mining Co. agrees with our records at September 15, 1970, with the following exceptions (if any):

Loan Balance - $46,116.95

Accrued interest - $10,123.86

Signed Office of Minerals Exploration

By Harold Kirkemo
Harold Kirkemo
Chief, Office of
Minerals Exploration

MME Form 7
(2/63)

OFFICIAL FILE COPY

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| 11/27/70 | Emerick | 120E |
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| | Emerick | 120E |
| | | |
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NOV 30 1970

AIRMAIL

Mr. Neil A. O'Donnell
President
Bamock Silver Mining Company
Ten West 300 South
Salt Lake City, Utah 84101

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. O'Donnell:

In regard to your request of November 11, 1970, for copies of all bills paid on behalf of the OME exploration on the above subject contract, the following material is available:

1. Purchase orders - dozer work
   3 pages - one side - 8½" x 11"

2. Drilling invoices - Joy Manuf. Co.
   15 pages - one side - 8 " x 11"

3. Certificates of Assay
   14 pages - one side - 8½" x 11"
   3 pages - one side - 6" x 8½"
   1 page - one side - 8½" x 9½"

4. Invoices for Supervision, geology and engineering
   13 pages - one side - 8½" x 11"

5. Invoices for Accounting and Office Expense
   9 pages - one side - 8½" x 11"

6. Invoices for Social Security tax (F.I.C.A.)
   2 pages - one side - 8½" x 11"

7. Invoices for geological consulting work
   2 pages- one side - 8½" x 11"

Returned 1/6/71

One or more copies of this material may be ordered by contacting:

Cooper-Trent Division
Keuffel & Esser Co.
Wilson Boulevard at Danville Street
Arlington, Va. 22201
Attention: Mr. Marvin Mundy

Cooper-Trent will contact you shortly regarding the cost of reproductions. Then please send the enclosed copy of this letter to the above address with remittance and your letter of instructions when ordering copies of this material.

All further correspondence relating to the procurement of copies of this material will be with the above company rather than with this office.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Chief, Office of
Minerals Exploration

Enclosure

For attention of Mr. Mundy:

Please return the enclosed material to:

Mr. Harold Kirkemo
Chief, Office of Minerals Exploration
U. S. Geological Survey
Room 4460, Interior Department
Washington, D. C. 20242

cc: Director's Reading File
Mineral Resources
OME docket
OME Reading File
OME Region III w/cy letter November 20, 1970, and Minutes of 8/31/70 meeting
Mr. Emerick
130

WLEmerick/gla 11-27-70

# INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Show to whom, date, and address where delivered ☐ Deliver ONLY to addressee

*(Additional charges required for these services)*

## RECEIPT

***Received the numbered article described below.***

REGISTERED NO.

CERTIFIED NO. 133691

INSURED NO.

DATE DELIVERED

DEC - 4 197

1 SIGNATURE OR NAME OF ADDRESSEE (*Must always be filled in*)

Cooper - Trent

2 SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

Paul J Mullins

3 SHOW WHERE DELIVERED (*only if requested*)

c55—16—71548-10 GPO

**POST OFFICE DEPARTMENT**
OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

POD Form 3811 Apr. 1967 055—16—71548-10

POSTMARK OF DELIVERING OFFICE

INSTRUCTIONS: Show name and address below and complete instructions on other side, where applicable. Moisten gummed ends, attach and hold firmly to back of article. Print on front of article *RETURN RECEIPT REQUESTED.*

**RETURN TO**

NAME OF SENDER
U. S. Geological Survey
Office of Minerals Exploration

STREET AND NO. OR P.O. BOX
Department of Interior Building

POST OFFICE, STATE, AND ZIP CODE
Washington, D. C. 20242

OME-6452-Miller

**BANNOCK SILVER MINING CO.**
TEN WEST 300 SOUTH
SALT LAKE CITY
UTAH 84101

801/359-4342

November 20, 1970

OFFICIAL
COPY
O. M. E.
RECEIVED
NOV 27 1970
INITIALS CODE
OME-6452

Mr. Harold Kirkemo
Chief, Office of Minerals Exploration
Geological Survey
U. S. Department of Interior
Washington, D. C. 20242

Dear Mr. Kirkemo:

In reply to your letter of November 17, 1970, relative to the transfer of control of Bannock Silver Mining Company from that of Mr. Thomas F. Miller to Northfield Mines, Inc., I would like to say that this transfer was not made through a deed conveyance but rather Northfield acquired a majority of the outstanding stock of Bannock from Mr. Miller.

Enclosed is a Xerox copy of the minutes of a special meeting called by Mr. Miller for the purpose of changing the officers of Bannock which I think is self-explanatory.

Inasmuch as the Xerox copy did not bring out the seal very well, I've taken the liberty of making a new impression in the lower left-hand corner with the official seal.

I trust this will suffice to cover the authenticity of present request for copies of OME expenditures on the exploration program at Vipont.

Sincerely,

BANNOCK SILVER MINING CO.

By Neil O'Donnell
Neil O'Donnell, President

NOD:sw

BANNOCK SILVER MINING COMPANY

MINUTES OF SPECIAL MEETING OF BOARD OF DIRECTORS

The meeting was called to order by Thomas F. Miller at 2:00 P.M. on August 31, 1970. In attendance at the meeting were Thomas F. Miller, James H. Miller and Sharon F. Miller, who served as secretary.

The board accepted the resignation of C. Maxwell Norman and unanimously voted to appoint Neil O'Donnell of Salt Lake City, Utah to fill the vacancy created by the resignation.

The board unanimously voted to elect new officers and the following were nominated and elected to serve in the positions noted:

President - Neil O'Donnell

Vice-President - Thomas F. Miller

Secy-Treasurer - (To be filled at a later date)

Mr. O'Donnell, as president, was authorized to change the official address of the corporation to Room 521, American Oil Building, Salt Lake City, Utah and to open up an office of the corporation at that location. Mr. O'Donnell was also authorized to sign and execute all legal documents and checks on behalf of the corporation and to open such accounts in the name and on behalf of the corporation as he deems necessary. Checks signed by Neil O'Donnell, as president, shall be honored and paid by such banks and charged to the account of the corporation.

The further powers of the officers of the corporation will be defined in the by-laws which are currently being prepared and which will be considered at the next meeting of the board of directors.

At the close of the meeting, director James H. Miller submitted his resignation. The vacancy created by this resignation will be filled at a subsequent meeting of the board.

There being no other business to be transacted, the meeting was adjourned.

Sharon F. Miller
Secretary of the Meeting

Thomas F. Miller
Thomas F. Miller - Director

MME Form 7
(2/63)

OFFICIAL FILE COPY

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|---|---|---|
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| | | |
| | | |
| 11/17 | Cac | 220 |
| | | 120E |

AIRMAIL

Mr. Neil A. O'Donnell, President
Bannock Silver Mining Company
Ten West 300 South
Salt Lake City, Utah 84101

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. O'Donnell:

This is in reply to your letter of November 11, 1970 requesting copies of all bills paid on behalf of the OME exploration on the above subject property.

To bring our records up to date, which show Mr. Thomas F. Miller, President, Bannock Silver Mining Company, we request that you send us a copy of the deed or document showing conveyance of Bannock Silver Mining Company to Northfield Mines, Inc., a wholly owned company of Mr. Thayer Lindsley.

Upon receipt of this information we will be pleased to make arrangements for you to obtain at cost copies of such bills or invoices that are in our records.

Sincerely yours,

Harold Kirkemo (ga)

Harold Kirkemo
Chief, Office of
Minerals Exploration

cc: Director's ReadingFile
Mineral Resources File
OME Docket
OME Reading File
OME Region III
Mr. Emerick

WLEmerick/bsl 11/17/70

11/16/7

Kirk:

No royalties have been paid to date.

gla

**BANNOCK SILVER MINING CO.**
TEN WEST 300 SOUTH
SALT LAKE CITY
UTAH 84101

801/359-4342

November 11, 1970

OFFICIAL COPY
O. M. E.
RECEIVED
NOV 16 1970
INITIALS CO. E
1/30
1/20

Mr. Harold Kirkemo, Chief
Office of Minerals Exploration, U.S.G.S.
Interior Building
Washington, D. C. 20242

Re: OME Docket 6452
Thomas F. Miller, Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Kirkemo:

Some time ago Northfield Mines, Inc., a wholly owned company of Mr. Thayer Lindsley, acquired stock control of Bannock Silver Mining Company and I became president of the company.

In order to straighten out the somewhat tangled affairs of Bannock, I have asked the auditing firm of S. E. Newman & Company of the Continental Bank Building, Salt Lake City, to make an audit. With that they are having some difficulty. In order to trace monies in and out of the depository bank, it will be necessary to have copies of all bills paid on behalf of the OME exploration on the property. Mr. Miller has turned over all his records and such copies are not among the records.

Through the local office of OME we were referred to Mr. J. William Hasler of the Denver office, who in turn referred us to you.

We would like to have copies of all the bills paid in connection with that exploration work and we are prepared to pay the cost of the copying and mailing.

Sincerely,

BANNOCK SILVER MINING COMPANY

By Neil A. O'Donnell
Neil A. O'Donnell, President

CC: S. E. Newman & Co.
Northfield Mines, Inc.
J. William Hasler

# United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

IN REPLY REFER TO: Office of Minerals Exploration

June 12, 1970

Bannock Silver Mining Company
c/o Pugsley, Hayes, Rampton & Watkiss
400 El Paso Gas Building
315 East Second South
Salt Lake City, Utah 84111

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

OFFICIAL COPY
O. & G. R.
RECEIVED
SEP 25 1970
INITIAL | DATE
Gla | 30
BK | 170
220

See Miller's address reverse side

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

Form MME 63
(May 1970)

# REQUEST FOR INFORMATION ON CERTIFIED PROJECT OR PROJECT UNDER ROYALTY AGREEMENT

1. Since September 10, 1968 has there been a change in ownership, lease, or sublease? *If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before.* Yes ☐ No ☒

2. Since September 10, 1968, has there been any production from the land subject to the contract? Yes ☐ No ☒

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

| Purchaser *(name and address)* | Quantity | Value |
|---|---|---|
| | | |

B. If stockpiled awaiting sale, state quantity, grade, and location.

| Type | Quantity *(tons)* | Estimated Grade | Location |
|---|---|---|---|
| Ore | | | |
| Concentrates | | | |
| Other | | | |

3. Since , has any production been transported through workings *(see of contract)*? Yes ☐ No ☒

*If so, state quantity, value, and disposition of material.*

| Disposition of Material | Quantity | Value |
|---|---|---|
| | | |

Submitted by:

| Name | Title |
|---|---|
| Thomas F Miller | President of Bannock Silver Mining Co. |
| **Address** | **Date** |
| Box 267 Oakley Idaho 83346 | August 28, 1970 |

MME Form 7
(2/63)

OFFICIAL FILE COPY

| Date | Surname | Code |
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AUG 7 1969

Memorandum

To: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Enclosed are two copies of the Lien and Subordination Agreements dated August 1969, executed by Thomas F. Miller, president of the Bannock Silver Mining Company, to which the subject property was conveyed by Warranty Deed, dated September 10, 1968, for attachment to your copy of the contract.

Harold Kirkemo (gla)

Harold Kirkemo

Enclosures

cc: Director's Reading File
Mineral Resources
OME docket
OME Reading File
Branch of Budget and Finance
Mr. Kirkemo
130 (2)

GLAult/a 8-7-69

Box 267
Oakley, Idaho 83346
August 4, 1969

Mr. Harold Kirkemo
Office of Minerals Exploration
United States Department of the Interior
Geological Survey
Washington, D. C. 20242

Dear Mr. Kirkemo:

Please find enclosed five (5) copies of the Lien and Subordination Agreements executed by Bannock Silver Mining Co.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

OFFICIAL COPY
O. M. E.
RECEIVED
AUG 6 1969

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L+AG
filed with contract

MME Form 7
(2/63)

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**AIRMAIL**

Mr. Thomas F. Miller
Rt. 1, Box 154
Cataldo, Idaho 83810

JUL 16 1969

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

To date, we have not received a reply to our letter to you of April 25, 1969, requesting that you have a Lien and Subordination Agreements executed by the Bannock Silver Mining Company, to which the subject property was conveyed by Warranty Deed, dated September 10, 1968.

Please give this matter your prompt attention and return five copies of the agreement for our records. Another set of forms is enclosed for your convenience.

Sincerely yours,

Harold Kirkemo (gla)

Rec'd. 8/6/69

Harold Kirkemo
Chief, Office of
Minerals Exploration

Enclosures

Copy to: Mr. Philip C. Pugsley
Pugsley, Hayes, Rampton & Watkiss
Attorneys at Law
400 El Paso Gas Building
315 East Second South
Salt Lake City, Utah 84111

cc: Director's Reading File
Mineral Resources
OMD docket
OME Reading File
OME Region III
Mr. Kirkemo
130

ult/a 7-16-69

MME Form 7
(2/63)

OFFICIAL FILE COPY

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APR 25 1969

**AIRMAIL**

Mr. Thomas F. Miller
Rt. 1, Box 154
Cataldo, Idaho 83810

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

The Warranty Deed, dated September 10, 1968, conveying the property under the subject contract from the Vipont Silver Mining Company to Bannock Silver Mining Company, which Mr. Philip C. Pugsley, of the firm of Pugsley, Hayes, Rampton & Watkins, Salt Lake City, Utah, forwarded to us on April 3, 1969, has been reviewed.

You are requested to have the Bannock Silver Mining Company execute a Lien and Subordination Agreements as of the date of transfer of ownership, September 10, 1968. A set of forms (MME Form 52) is enclosed for your use. Five copies of the agreement should be returned to this office and one copy retained for your files.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Chief, Office of
Minerals Exploration

Enclosures

Copy to: Mr. Philip C. Pugsley
Pugsley, Hayes, Rampton & Watkins
Attorneys at Law
400 El Paso Gas Building
315 East Second South
Salt Lake City, Utah 84111

cc: Director's Reading File
Economic Geology File
Docket copy
OME Reading File
OME Region III w/4 enclosur
Mr. Kirkemo
130

GLAult/a 4-24-69

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON, D.C. 20240

April 22, 1969

OFFICIAL COPY
O. M. E.
RECEIVED
APR 22 1969

| INITIALS | CODE |
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| | ~~120~~ |
| | 120 |

Memorandum

To: Chief, Office of Minerals Exploration

From: Assistant Solicitor, Oil and Gas and Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

We have reviewed the Warranty Deed dated September 10, 1968 from Vipont Silver Mining Company to Bannock Silver Mining Company and the entire file which were transmitted with your memorandum of April 9, 1969.

Thomas F. Miller, the Operator under the subject contract was in possession of the property pursuant to a Mine Lease dated January 2, 1965 from Vipont Silver Mining Company. The file also contains a Lien and Subordination Agreements executed by Vipont Silver Mining Company on February 25, 1965.

Mr. Miller's letter of October 28, 1968 to Mr. J. William Hasler informs OME that Mr. Miller and a Mr. Thayer Lindsley purchased the property on September 9, 1968 and transferred title to Bannock Silver Mining Company in which Mr. Miller owns the controlling interest.

As you have observed,the deed recites that the conveyance is subject to "Any liens or other encumbrances placed upon the property by Thomas Miller or anyone associated with him." A specific reference to the Government's lien would have been more desirable, but in any event since Miller, the operator, is the purchaser he has actual notice of the Government's lien and he is bound by the provisions of Articles 2 and 7 of the contract.

In the circumstances, we suggest that you request that Miller have Bannock Silver Mining Company execute a Lien and Suborindation Agreements and also that you address the Certification of Possible Production to Thomas F. Miller with a copy to Bannock Silver Mining Company.

Robert W. Long

Robert W. Long
Assistant Solicitor
Oil and Gas and Minerals Exploration

Enclosure

MME Form 7
(2/63)

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April 9, 1969

Memorandum

To: Assistant Solicitor, Oil and Gas and Minerals Exploration

From: Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

The Operator under the subject contract transferred ownership of the property to Bannock Silver Mining Company. A Warranty Deed by which the new owner acquired the property is enclosed.

Are the Government's rights to royalties on production and liens for the payment thereof protected by this Warranty Deed? We note on page 2 of the document that "This conveyance is subject to any liens or other encumbrances placed upon the property by Thomas Miller (the Operator under the subject contract and owner of the controlling interest in Bannock Silver Mining Company) or anyone associated with him."

A Certification of Possible Production must be issued on the contract this month. In view of the change in ownership, should the certification be addressed to Thomas F. Miller, the Operator under the contract, with a copy to the new owners, or addressed to the new owners with a copy to Thomas F. Miller? Can the certification be issued before the question is settled as to protection of the Government's rights in the Warranty Deed mentioned above?

Harold Kirkemo (gla)
Harold Kirkemo

Enclosures

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
Mr. Kirkemo

HKirkemo/gla 4-9-69

PUGSLEY, HAYES, RAMPTON & WATKISS
ATTORNEYS AT LAW
400 EL PASO GAS BUILDING
315 EAST SECOND SOUTH
SALT LAKE CITY, UTAH 84111

HARRY D. PUGSLEY
ZAR E. HAYES
CALVIN L. RAMPTON (INACTIVE)
DAVID K. WATKISS
JAMES P. COWLEY
L. R. GARDINER, JR.
J. JAY BULLOCK
STEPHEN G. MORGAN
PHILIP C. PUGSLEY
GLEN E. DAVIES

TELEPHONE 328-0371
AREA CODE 801

April 3, 1969

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Mr. Frank E. Johnson
Chief, Office of Mineral Exploration
U. S. Geological Survey
Office of Mineral Exploration
Washington, D. C. 20242

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Countract 2220

Dear Mr. Johnson:

We represent Bannock Silver Mining Company and have been given your letter dated January 29, 1969 inquiring as to the type of protection which has been afforded to the Government's royalty rights and lien on the property located in Box Elder County, Utah. We prepared the Deed by which Bannock Silver Mining Company acquired the property, but were unaware of any requirement concerning the recordation of any document securing the Government's rights under the contract. A copy of the Warranty Deed is enclosed herewith.

If you would like to prepare whatever type of document is customarily used in connection with these matters, we will be pleased to see that it is recorded and then returned to you. The title to this property is clear and recording the document at this point in time will in no way jeopardize the Government's position.

We look forward to hearing from you and will be glad to assist in any way possible.

Yours sincerely,

Philip C. Pugsley

PCP:rmc

Enclosure

Rt. 1 Box 154
Cataldo, Idaho 83810
March 27, 1969

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O. M. E.
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Mr. Harold Kirkemo
United States Dept. of Interior
U.S. Geological Survey, O.M.E.
Washington, D. C. 20242

GME-645V

Dear Mr. Kirkemo:

I received your letter today concerning the conveyance lein. I am sorry this wasn't done sooner, but I overlooked it in your letter of January 29, 1969.

My lawyer in Salt Lake will send you the necessary data immediately.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

Thomas F. Miller
Rt. 1 Box 154
Cataldo, Idaho 83810

PINEHURST, ID
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U.S. AIR MAIL
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Mr. Harold Kirkemo
United States Dept. of Interior
U. S. Geological Survey, O.M.E.
Washington, D. C. 20242

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MAR 25 1969

**AIRMAIL**

Mr. Thomas F. Miller
Rt. 1, Box 154
Cataldo, Idaho 83810

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

We have had no reply from you to our letter of January 29, 1969, wherein we requested two true copies of the instrument of conveyance, lien, or encumbrance showing preservation of the Government's rights to royalties on production and liens for the payment thereof with respect to the transfer of ownership of the property to Bannock Silver Mining Company.

Please send us these copies at your earliest convenience.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo
Acting Chief
Office of Minerals Exploration

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
OME Region III
Mr. Kirkemo

HKirkemo/gla 3-25-69

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 200

February 12, 1969

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

FEB 17 1969
INITIALS CODE

At the urging of the Office of Minerals Exploration, Washington, a review of the Operator's estimate of ore reserves has been undertaken to render a more realistic appraisal.

The Operator[1/] cited from reliable published sources a total known production from the Ashbrook district of 180,224 tons that contained 3,423,470 ounces of silver. These figures calculate close to 20 oz. Ag/ton given by the Operator as his estimate of the tenor of ore reserves.

The Operator computed his reserves using as his basis 180,000 tons of production that came from an area 1,400 feet long by 600 feet wide in the Vipont mine. This is calculated by the Operator as 12,857 tons per 100 feet of mined length. The Operator considers that an area, 600 feet wide by 700 feet long -- the distance from the down-dip extremity of the mined area to ore holes V3 and V6 -- constitutes a reserve block. The Operator[2/] uses as a basis 12,857 tons of ore per 100 feet of dip length in the mined area, and from this he calculates 90,000 tons of what he terms probable reserves.

It is difficult to appraise the accuracy of production records; they can only be assumed to be correct if the figures are accepted and published by what are regarded as authoritative sources.

1/ Thomas A. Miller, application, OME-6452 (silver), p. 5-6
2/ Thomas A. Miller, final report of OME-6452 (silver exploration program of the Vipont Mine, p. 5)

A deposit of 180,000 tons of sulfide ore, if contained in a single blanket that measures 1400 feet by 600 feet would have to have an average thickness of 2.14 feet (using 10 cubic feet to the ton). Actually the ore in the Vipont mine was present in many irregular, patchy deposits randomly distributed both laterally and vertically in the Vipont Limestone. There are no figures of measurement of individual ore bodies given either by the Operator or V. E. Peterson 3/, who made a study of the Ashbrook district. Peterson rendered two idealized sketches which show lenticular ore bodies, in part emplaced in conformity with the beds of the host limestone and in part crosscutting the beds. The idealized sketches are accompanied by scale which show the bodies to be 5 feet to 20 feet long and 2 feet to 4 feet thick. The bodies are not entirely composed of ore and gangue minerals but include significant proportions of unreplaced limestone. There is no description or estimate of the spatial distribution of the ore bodies within the Vipont mine and it is highly probable that their number and size differ from place to place within the mine. To visualize the ore bodies with an idea of appraising the accuracy of the stated production is certainly not possible and consequently there is no basis for disputing the given figure of 180,000 tons.

It's almost a certainty that some ore reserves are present in the block of ground between the down-dip extremity of the mine workings and drill holes V3 and V6. The Operator estimated ore in the reserve block to be present in the same proportion as in the mined area. This is not entirely illogical but neither is it conservative. According to the operator 4/ virtually no reserves were in sight in the mine at the time his application was submitted. This is considered to mean no ore was showing in the headings at the down-dip extremity of the mine workings. Also, four holes, V1, V2, V4 and V5 put down in line with holes V3 and V6, did not penetrate ore. Although all are mineralized in view of this it seems prudent to use a lower tonnage figure of ore reserve estimate, a figure one-third of that estimated by the operator, or 30,000 tons seems sufficiently conservative. These reserves are classed as inferred. //

Ore grade material penetrated in holes V3 and V6 can be classed as indicated reserves. Using a 25 foot radius of ore extension about these holes and an ore thicknesses of 1.9 feet and 3.2 feet, a reserve 800 tons of ore is calculated. //

3/ Victor E. Peterson, 1942, A study of the geology and ore deposits of the Ashbrook silver mining district, Utah: Economic Geology, vol. 37, No. 6, p. 466 - 502.

4/ Thomas A. Miller, application, OME-6452 (Silver), p. 9.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Standard Form No. 1047
7 GAO 5000
1047-104

# PUBLIC VOUCHER FOR REFUNDS

94610
*Voucher No.*

*U. S.* Interior, Geological Survey
(Department or Establishment, Bureau or Office)

*Location:* Washington, D. C. 20242

*Appropriation or Fund:* 14X6875(08)

PAID BY

*To*
*Address*
Thomas F. Miller
(Vipont Mine)
Box 267
Oakley, Idaho 83346

Withheld ~~Repossession~~ *from the above-named* ~~voucher~~ *on* 1/26/68 (Nov 1967 voucher), *19*

*for* pending receipt of final report - Contract #2220 OME6452

*has been applied as herein stated and the balance indicated is returned herewith:*

*Amount of deposit* Sch #84803 $ 200.00

*Applied as explained in "Remarks" below*

*Balance authorized to be refunded* $ 200.00

*Remarks:*
An acceptable Operator's final report has been received per memo from Chief, Office of Minerals Exploration, 1/27/69.

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O. M. E.
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FEB 14 1969

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(*Sign original only*)
A. Gabor
*Title*

*Refund by*
*Check No.*
*Cash, $* *on* (*Signature of payee*) (Sign original only)
*Other method, $* , (Describe)

* U.S. GOVERNMENT PRINTING OFFICE : 1960 O—572727

MME Form 7
(2/63)

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**AIRMAIL**

JAN 29 1969

Mr. Thomas F. Miller
Rt. 1, Box 154
Cataldo, Idaho 83810

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

This is to acknowledge your request of January 15, 1969, to rescind the Termination Agreement, dated August 13, 1968, to the subject contract in order to undertake the drilling outlined in a proposed amendment which you had previously decided not to execute. You propose to finance this work with funds remaining in the contract before it was terminated.

This request cannot be approved because the contract and all obligations of the parties concerned, except winding-up and settlement actions, were terminated effective November 23, 1967, and no contributions can be made by the Government for any work after that date.

Any proposal for additional work on the property must be considered as a new application and subject to the same review and conditions as other applications, such as the geologic probability of a significant discovery being made and availability of funds. Reference may be made in a new application to factual data previously submitted for the contract now terminated, but any new information must be submitted in full as requested on the application form.

We note that there has been a change in ownership of the Vipont property and that you retain controlling interest in the new venture--Bannock Silver Mining Co. In accordance with Article 2(c) of the contract, please submit two true copies of the instrument of conveyance, lien, or encumbrance showing preservation of the Government's rights to royalties on production and liens for the payment thereof.

We regret that we cannot assist you further under terminated Contract 2220.

Sincerely yours,

FRANK E. JOHNSON (gla)

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
OME Region III w/cy letter 1/15/69
Mr. Kirkemo
130

HKirkemo/gla 1-27-69

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January 27, 1969

Memorandum

To: Branch of Budget and Finance

From: Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

The Operator under the subject contract has submitted an acceptable final report. It is recommended that the $200.00 withheld from the Operator's last voucher (November 1967) be paid to the Operator.

FRANK E. JOHNSON (GLA)

Frank E. Johnson

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
OME Region III
Mr. Kirkemo

GLAult/a 1-27-69

Rt. 1 Box 154
Cataldo, Idaho 83810
January 15, 1969

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Mr. Frank E. Johnson, Director
Department of the Interior
Geological Survey
Office of Minerals Exploration
Washington 25, D. C.

Re: OME 6452 (Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

Dear Mr. Johnson:

If it would be possible, I would like to recind the Termination Agreement signed August 13, 1968 between your department and myself. I would like to drill the three or more holes as was suggested by you in the Vipont Area. I now agree with you on this point and submit that it would give more needed information here.

I hope the closing of the contract hasn't been finalized to date.

I would appreciate hearing from you on this matter.

If you would agree to this, I will make every effort to get a drill up there as soon as the weather allows.

I have discussed the above with Mr. Hasler, who suggested I get in touch with you.

In closing, Mr. Hasler said that C. F. Arnold, geologist for Phelps Dodge, wanted permission to look at my contract with you. It is all right with me.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration
Building 53 Room 203

November 21, 1968

OFFICIAL COPY
NOV 22

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

The Operator submitted a final report that was received in this office November 1, 1968 pursuant to Article 5(c) of the subject contract, concerning exploration work that was done on the Vipont Mine Area, Ashbrook Mining District, Box Elder County, Utah. Transmitted herewith is the original final report on the subject property. A review of the project shows that the Operator completed a total of 31,043.50 feet of non-core drilling and 18,043.50 feet of core drilling in 15 drill holes to explore for silver-bearing ore bodies in the Vipont Limestone (Mississippian Age), the Phelan Limestone (Pennsylvanian-Permian Age) and other favorable formations that may be present below the unfavorable Wardlaw Shale. The drilling was done in the Vipont, Midway, and Lexington-Argenta areas. Fifteen drill holes were completed at a total cost of $61,493.60. Region III files shows that the applicant has been authorized payment of $45,517.41, of which has been paid and $200.00 of which has been withheld. Upon transmittal of this report I recommend the Operator be paid the $200.00 withheld. The Operator calculates some 90,000 tons of probable ore based on past production from the Vipont Mine, and on a projected down dip mineralized area in the Vipont Limestone. The Operator assumes that ore bodies of similar size and grade are probably present between the Vipont workings and the mineralized O.M.E. holes V-3 and V-6. If one accepts the reserve figures of 90,000 tons at an average gross value of some $50.00 per ton the total value would be $4,500,000.00 which to me appears extremely high. It seems hazardous to estimate tonnages of ore based on the results of only two holes, especially inasmuch as only two holes out of the six drilled

in the Vipont area penetrated ore grade material. The downward extension of the Vipont ore body should have been explored more extensively in the area between the row of holes V-1 and V-6 and the nearest known stopes of the Vipont mine. Had this been done a more accurate calculation of ore reserves could have been made. If, however, the Operator feels confident of his ore reserve calculation, and he must as he has formed the Bannock Silver Mining Company and has applied to the Security Exchange Commission in an attempt to offer stock to the general public, it is recommended that the Operator's reserve figure be accepted and that, on that, on this basis, a certification of discovery be declared.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosure

OME Region III
RECEIVED
NOV 2 - 1968
Denver, Colorado

Route 1 Box 154
Cataldo, Idaho 83810
October 28, 1968

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Mr. J. William Hasler
Dept. of the Interior, O.M.E.
Denver Federal Center
Building 23, Room 203
Denver, Colorado 80225

Subj: OME 6452 (Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

Dear Mr. Hasler:

Please find enclosed three copies of the final geological report of the above contract.

I should mention here that I an Thayer Lindsley purchased the Vipont property September 9, 1968, and transferred the title to Bannock Silver Mining Co., 400 El Paso Natural Gas Building, Salt Lake City, Utah.

I own controlling interest in the company. I would appreciate you making royalty payments due out of production as an obligation to Bannock Silver Mining Co.

copies of documents showing obligation to pay Bannock Silver Mining Co. royalties on production of gold royalty to

It has been a pleasure working with you and the O.M.E. on this project. I appreciated your support. Also I hope in not too distant future to do business again with you.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

O.M.E. EXPLORATION REPORT ON THE VIPONT MINE

by
Thomas F. Miller

October, 1968

Operators
Final
Report

## INTRODUCTION

### Summary of Contract 2220

Thomas F. Miller and the U.S. Government, under the direction of the Office of Minerals Exploration (O.M.E.) entered into an exploration contract (Contract 2220), June 22, 1966, to explore primarily for silver and other valuable metals on the Vipont group of claims located in the Ashbrook Mining District, Box Elder County, Utah.

The total allowable cost was $78,800.00 Of this amount, the Government share was 75%, or $59,100.00, and the operator's share was the remaining 25%, or $19,700.00.

The exploration contract was completed on November 23, 1967, at a total allowable cost of $61,493.63. Of this amount, the Government paid $46,120.20. This amount, plus interest at 6 3/4%, is to be paid back on a 5%-per-ton-net-smelter-royalty basis.

## PROPERTY and LOCATION

The property, which is known as the Vipont Mine, consists of 53 patented lode mining claims in section 31, T. 15 N., R. 17 W.; section 6 & 7, T. 14 N., R. 17 W.; section 36, T. 15 N., R. 18 W.; and sections 1 and 12, T. 14 N., R. 18 W.--Salt Lake Meridian, Ashbrook Mining District, Box Elder County, Utah. The total claims consist of approximately 1000 acres in all.

The mine is located ten miles from the Nevada border and one mile from the Idaho border. Oakley, Idaho, 26 miles to the North, is the nearest town of any significance. There is a rail-head at Oakley. Two fair gravel roads lead to the mine from Oakley.

## GEOLOGY IN BRIEF

The main mineral deposit occurs in the highly fractured, broken and folded Vipont limestone. This limestone, which varies from 30 to 150 feet in thickness, is overlain by an impervous carboneacous soft shale hanging wall (Wardlaw shale). It is underlain by a 100' thick Rhyolite porphyry sill which has been intruded between the Vipont and Sentinel limestone. The Sentinel limestone is a highly siliceous, tight bedded limestone varying from 30 to 200' in thickness. Above the Wardlaw shale is the massive bedded Phelan limestone, which is from 100 to 400' thick. The Phelan limestone is the host rock for some of the ore in the Lexing-ton-Argenta area.

The four sedimentary beds mentioned above are mid-paleozoic in age. The Rhyolite porphyry is Tertiary.

The sedimentary beds were overthrust into the area from the southwest (probably during the Laramide revolution) and rest unconformably upon the tilted schistos and micacious quartzites of Pre-Cambrian age. The whole structure makes into a large geo-syncline plunging to the southwest at about 20 degrees.

About a mile southwest of the main workings, an acidic stock of Tertiary age rises from the geo-syncline or trough. The porphyry sill that is intruded below the Vipont limestone is an off-shoot from this acidic stock.

The minerals probably came in as gases under high pressure and relatively stable temperature conditions and forced their way upward into the fractures in the Vipont limestone. They formed as irregular replacement in this limestone bed.

Conditions were ideal for the formation of this mineral deposit.

The Vipont ores appear to be Mesothermal.

## GEOLOGICAL EVALUATION OF THE DRILLING

The drilling program, although quite limited for such a large target area, was considered successful, although the results on two holes (V-5 & M-3) were inconclusive because too much core was lost within the ore-bearing horizon. Core was probably lost within the ore-bearing horizon because of the soft crumbly nature of the sulphide mineralization.

A total of fifteen holes were diamond core drilled. Positive intersections were obtained in three holes (V-3, V-6 & G-2). (See Master Map for hole location.)

The holes were drilled to test mineralization in the Vipont limestone, structure and rock occurrence. The limited amount of drilling did accomplish the following:

1. Demonstrated that probable ore exists another 700' down dip in the Vipont Area. Indicated a probable 90,000 tons of 20 oz. Ag, or equivelent, ore reserves in the Vipont limestone in this area. Indicated possible ore down dip from the drill hole intersections.

2. Demonstrated that possible ore exists in the Phelan limestone in the Lexington Area.

3. Proved that the Vipont limestone is continuous throughout the Vipont, Midway, and Lexington-Argenta areas. Also indicated

that it may continue as a manto blanket to the porphyry stock several thousand feet down dip.

4. Proved that the acidic porphyry sill (Rhyolite porphyry) underlies the Vipont, Midway, and Lexington-Argenta areas. Also indicated that it continues to the parent porphyry stock several thousand feet down dip. (See X-Sections A-A' and B-B')

5. Has shown that silver mineralization exists throughout a large area and when considered as a mass volume, constitutes a major mineralization action.

6. Has shown that values other than silver exist at depth and enough quantity to be mined as ore--namely Au, Cu, Pb and Zn.

7. Has given adequate information to merit the property for future exploration and development.

8. Has shown that diamond drilling in an irregular ore deposit like this would not be the most effective tool if used alone for future ore discovery in the area. Underground development should be done in conjunction with surface drilling in the next phase of work on the property.

The drilling is broken down by area, i.e., Vipont Area, Midway Area, etc.

## Vipont Area

It was stated in my proposal to the O.M.E. that a minimum of six holes be drilled in this area 100' apart in a straight line, to adequately explore the downward extension of the ore shoots in the lowest workings of the old mine. It was pointed out that if ore existed at this point statisticly two holes should intersect ore.

Holes V-3 and V-6 intersected commercial ore. Holes V-1, V-4, and V-5 encountered significant mineralization, while Hole V-2 made no intersections (Ref. X-Section C-C').

Commercial ore in Holes V-3 and V-6 gross assayed values are:

Drill Hole No. 3

| | | | | | |
|---|---|---|---|---|---|
| Gold | .50 oz. | @ $39.00/oz. | $19.50 per ton | | |
| Silver | 13.50 oz. | @ 2.00/oz. | 27.00 " " | | |
| Copper | .65 % | @ .42/lb. | 5.46 " " | 1.3' + thick | |
| Lead | 4.00 % | @ .13/lb. | 10.40 " " | | |
| Zinc | 1.80 % | @ .135/lb. | 4.86 " " | | |
| | | | $67.22 per ton | | |

Drill Hole No. 6

Total Intersection 3.2'

| | | | | | |
|---|---|---|---|---|---|
| Gold | 0.06 oz. | @ $39.00/oz. | $ 2.34 | per ton | |
| Silver | 16.40 oz. | @ 2.00/oz. | 32.80 | " " | |
| Copper | 0.15 % | @ .42/lb. | 1.26 | " " | 3.2' thick |
| Lead | 2.60 % | @ .13/lb. | 6.76 | " " | |
| Zinc | 3.60 % | @ .135/lb. | 9.72 | " " | |
| | | | $52.88 | per ton | |

## Midway Area

Three holes were drilled in this area as proposed in the contract. They were drilled to intersect the downward extension of a known ore shoot 700' updip in the old Midway Tunnel. No commercial ore zones were encountered; however significant mineralized intersections were obtained.

Direction of the ore rake was not known from the Midway workings and may have been missed by these holes. (Ref. X-Section D-D') Good information was obtained concerning rock type and structure; a fault of at least 40' displacement lies between drill holes N-2 and N-3.

## Argenta Area

Holes M-2, M-3, L-1 and K-1 were drilled in this area as proposed. Holes M-1 and K-2 were deleted.

No commercial ore was encountered; although good mineralized sections were obtained from Hole M-3. Core recovery was extremely poor in this hole due to the soft and fractured rock. The hole apparently was drilled right on the projected fault. (Ref. X-Sections E-E' and F-F')

## Lexington Area

One hole was drilled here (Hole G-2). Possible ore was intersected at relatively shallow depth in the Phelan limestone. More drilling should be done here to further explore this possibility. (Ref. X-Section G-G')

## ESTIMATE OF ORE RESERVES

### Vipont Area

90,000 tons of probable ore

The present line of drill holes 700' down dip is too great of a gap to credit this ore (Vipont Area) as anything but probable ore. It can not be classed as blocked or proven, but only as indicated probable ore.

The old workings were mined down dip for a total slope distance of 1400' and produced 180,000 tons of 20 oz. Ag ore, along with several hundred tons of high grade direct shipping ore. The ore body averaged 600' in width for this distance.

A total probable tonnage of 90,000 tons of ore is indicated based on the past recovery of 12,857 tons average per 100 feet mined down dip. The estimate is supported by the fact that the ore grade was nearly constant at 20 oz. millheads for the slope distance mined, and that the ore did not diminish in grade on the lower levels of the mine (i.e. Phelan Tunnel level). (See map "Vipont Area Ore Body". This map shows the area of probable ore reserves in plan view.)

The drilling also indicated possible ore down dip from the Vipont Area hole intersections. Possible ore could be considered in the Lexington Area (Ref. Hole G-2). More exploration work would be required to test these possibilities.

## COST SUMMARY

### Direct Cost

| | | | |
|---|---|---|---|
| **Drilling**--fifteen holes, total footage 9384.4' | | | |
| Rotary (non-core) | 6705.0' at $4.70/ft. | $31,043.50 | |
| BX-Diamond Core | 2679.4' at 6.90/ft. | 18,487.86 | |
| Total Drilling | | | $49,531.36 |
| **Supervision & Technical** | | | |
| Operator, T. F. Miller, 12 months at $750/month | | | 9,684.24 |
| **Geological Consulting** | | | |
| Eight (8) days at $75.00 a day | | $ 600.00 | |
| Per diem & travel | | 180.00 | |
| | | | 780.00 |
| **Bulldozing** | | | |
| Bulldozing | | $ 500.00 | |
| Mobilization | | 98.00 | |
| | | | 598.00 |
| **Assaying** | | | 900.00 |
| Total Direct Cost | | | $60,809.36 |

### Indirect Cost

| | |
|---|---|
| F.I.C.A. | 434.24 |
| Accounting and Office Expenses | 250.00 |
| Total Indirect Cost | $ 684.24 |
| Total Cost | $61,493.00 |

| | |
|---|---|
| Government share at 75% of total | $46,120.20 |
| Operator's share at 25% of total | 15,373.40 |

## COST SUMMARY AND DRILL RESULTS BY AREA

### Vipont Area

| e | Depth to Ls. H.W. | Limestone Thickness | Porphyry Thickness | Total Depth | Core Recovery | Cost | Mineralization |
|---|---|---|---|---|---|---|---|
| | 531.3' | 34.9' | 87.6' | 674' | 96.4% | $3638.60 | 4.7' of 2.0 oz Ag<br>1.6' of 1.6 oz Ag (other) |
| | 528.0' | 38.0' | | 566' | 88.4% | 2846.80 | .9' of .2 oz Ag |
| 3 | 528.5' | 56.7' | | 588.1' | 99.6% | 2944.69 | 1.75' of ore<br>2.4' of 2.0 oz Ag (other) |
| 4 | 546.3' | 55.0' | | 605.7' | 99.8% | 3074.50 | .4' of 1.4 oz Ag (other) |
| 5 | 550.5' | 85.6' | | 639.0' | 78.0% | 3227.70 | 4.8' of .02 oz Au (other) |
| 5 | 592.2' | 116.5' | | 713.0' | 96% | 3731.70 | 5.3' of ore |
| | | | | | | $19,463.99 | |

### Midway Area

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 400.4' | 151.7' | 126.0' | 697.7' | 99.8% | $4022.13 | None |
| 2 | 409.4' | 143.2' | | 580' | 98% | 3144.00 | .8' of .02 oz Ag |
| 3 | 527.8' | 68.2' | | 598' | 95.8% | 3290.20 | 7.9' of 2.0 oz Ag<br>3.5' of .4 oz Ag |
| | | | | | | $10,456.33 | |

### Lexington-Argenta Area

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | 208' | 123 | | 343' | 82.5% | $2102.70 | 4.5' of 2.0 oz Ag<br>5.0' of 3.3 oz Ag (other) |
| 2 | 227.5' | 75.5' | | 306.8' | 89.3% | 1654.92 | None |
| 1 | 397 | 75' | | 476' | 95.6% | 2492.40 | .3' of .8 oz Ag |
| 1 | 616.5' | 82.5' | | 699 | 99.9% | 3515.60 | Some in Phelan Ls. |
| 1 | 785' | 147' | | 932' | 91% | 5525.82 | Small amounts in both Ls. beds |
| 2 | 684' | 161' | | 845' | 85.5% | 4,364.60 | 3.5' of ore-Phelan Ls.<br>5.0' of 1.6 oz Ag (other) |
| | | | | | | $19,656.04 | |

Total Drilling Cost $49,531.36

## SUMMARY AND RECOMMENDATION

The limited drilling program has been successful in two of the three areas drilled. Core recovery was good for the most part, except for two holes.

Because the drilling did indicate a substantial tonnage of probable ore, I recommend that further exploration and development be carried on in a manner similar to the one I recommended to the O.M.E. in the spring of 1965--namely that:

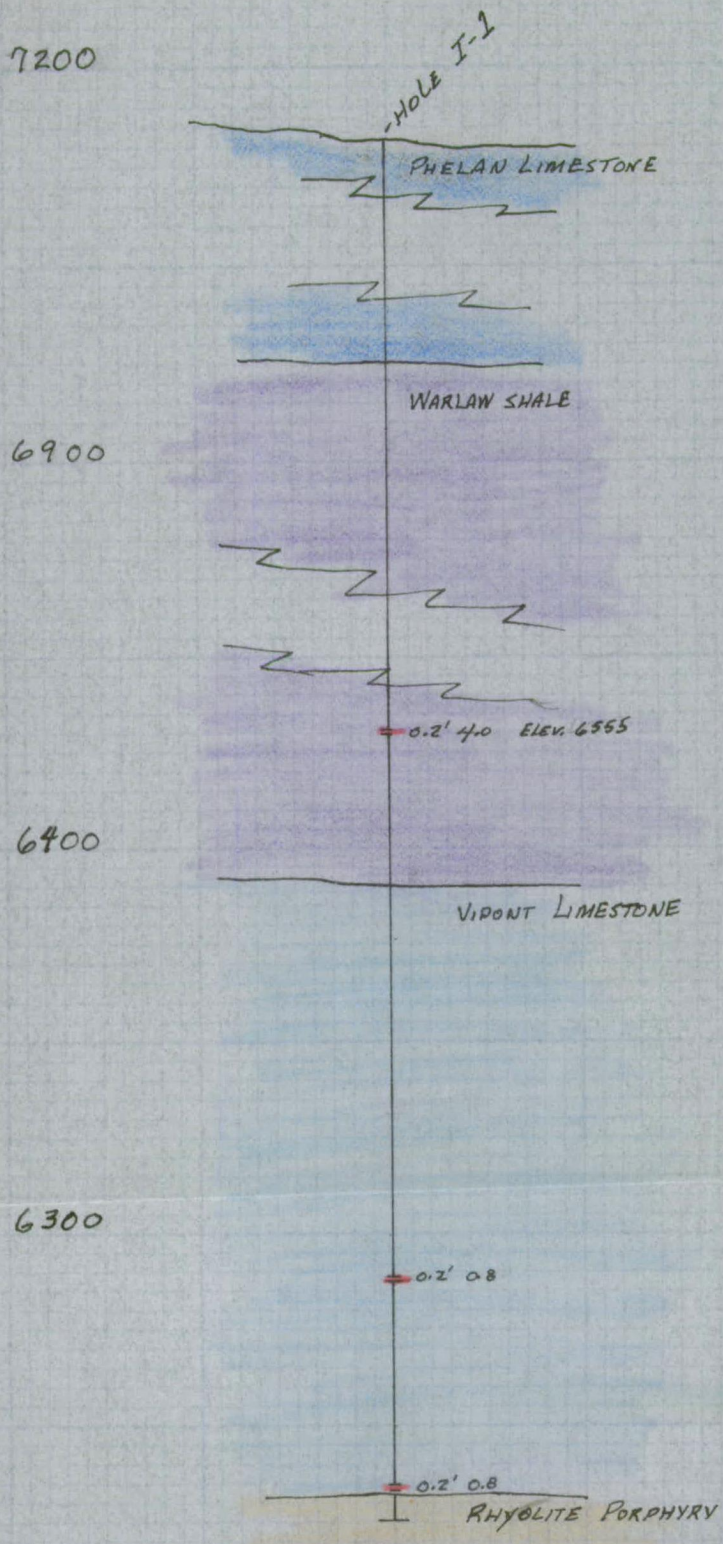
1. A tunnel be driven to intersect the Vipont limestone just below the ore intersections in Holes V-3 and V-6.

2. Drifts and raises to be driven along this target area.

3. Underground diamond core drilling to further define the ore bodies--with holes to be drilled at fairly close intervals.

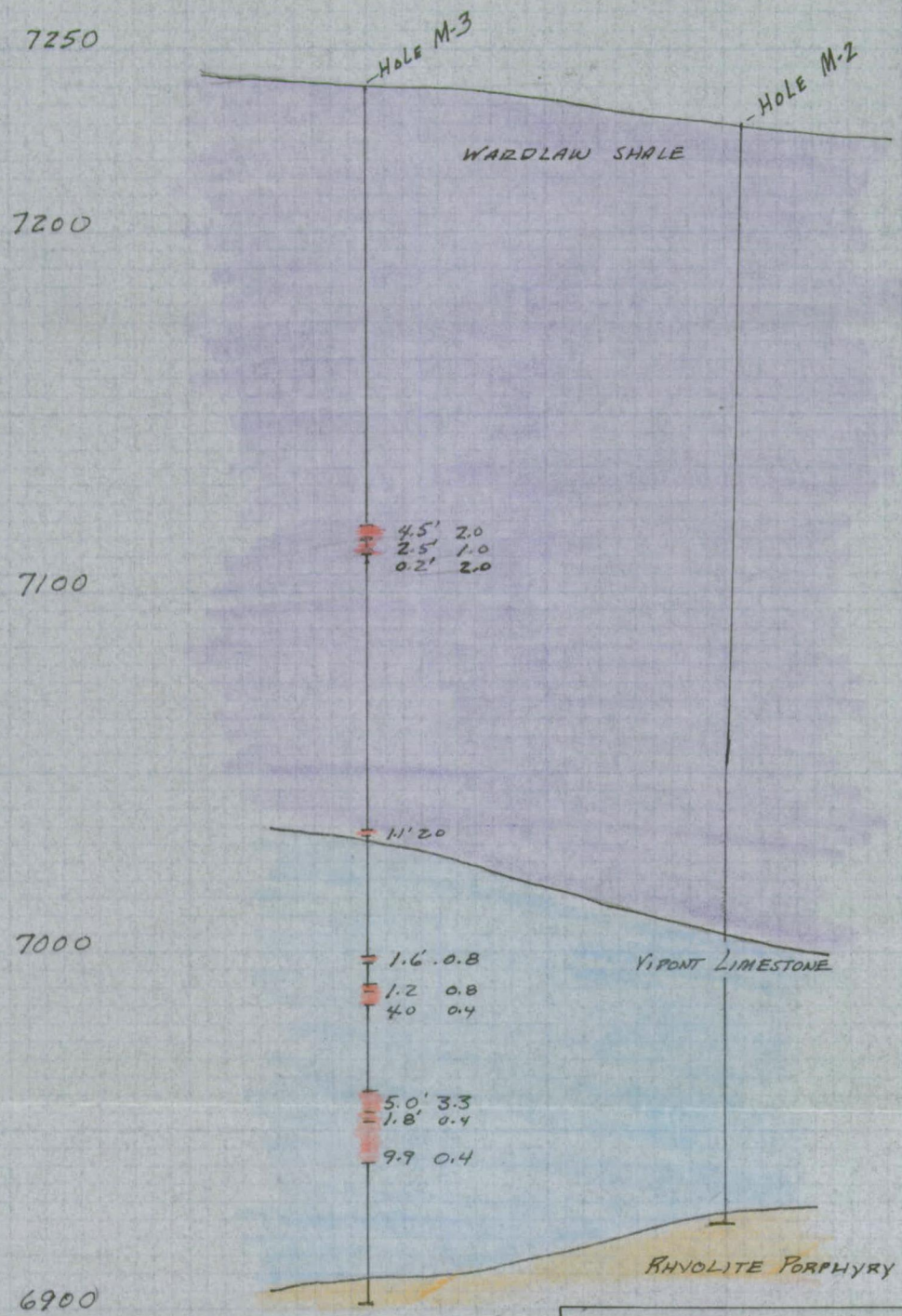
4. Surface drilling on a limited basis to test the area below the tunnel intersection with the Vipont limestone. This drilling to progress downward toward the Porphyry stock in stages.

5. Surface drilling in the Lexington areas to further test the ore possibilities in that area.



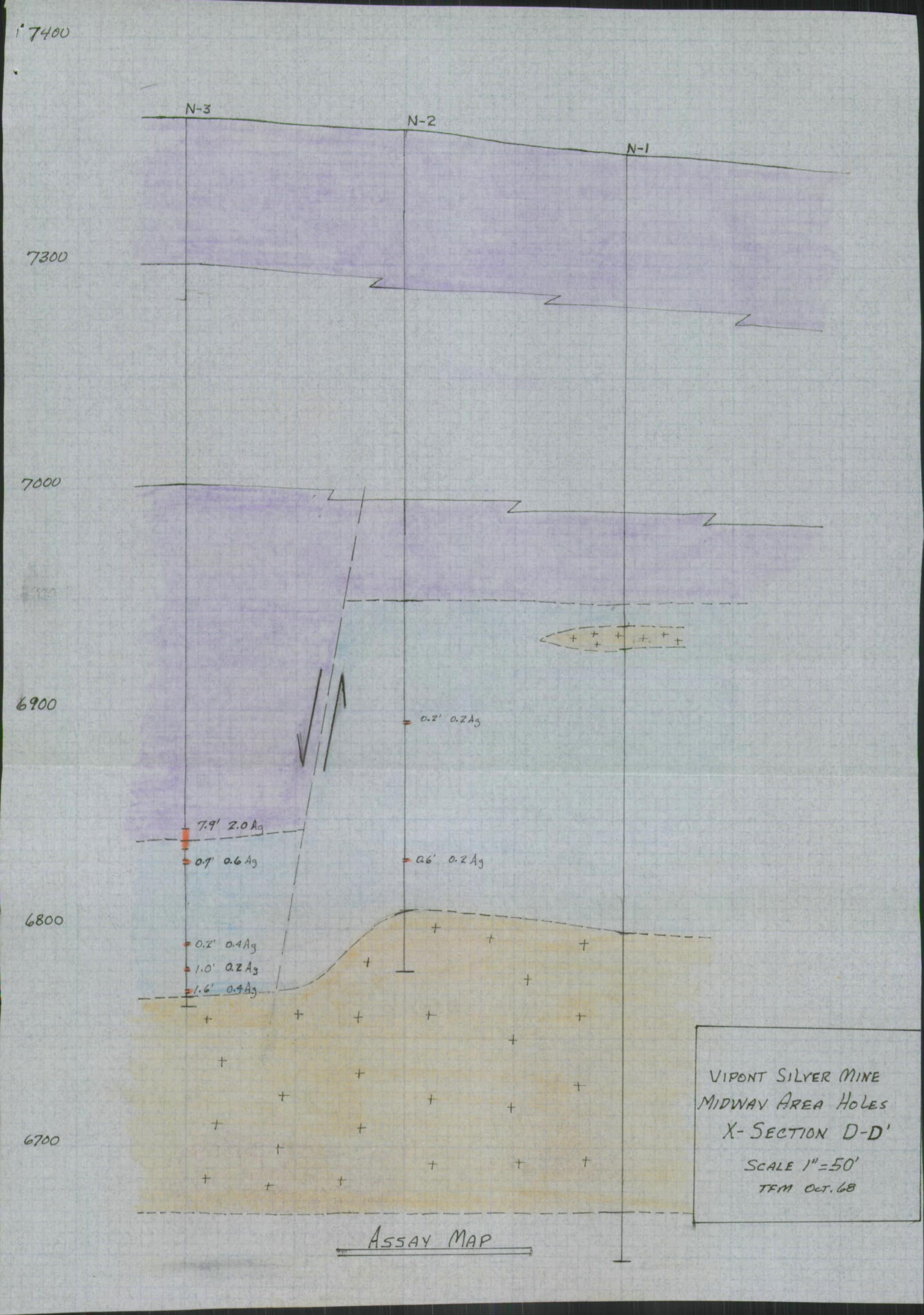

ASSAY MAP

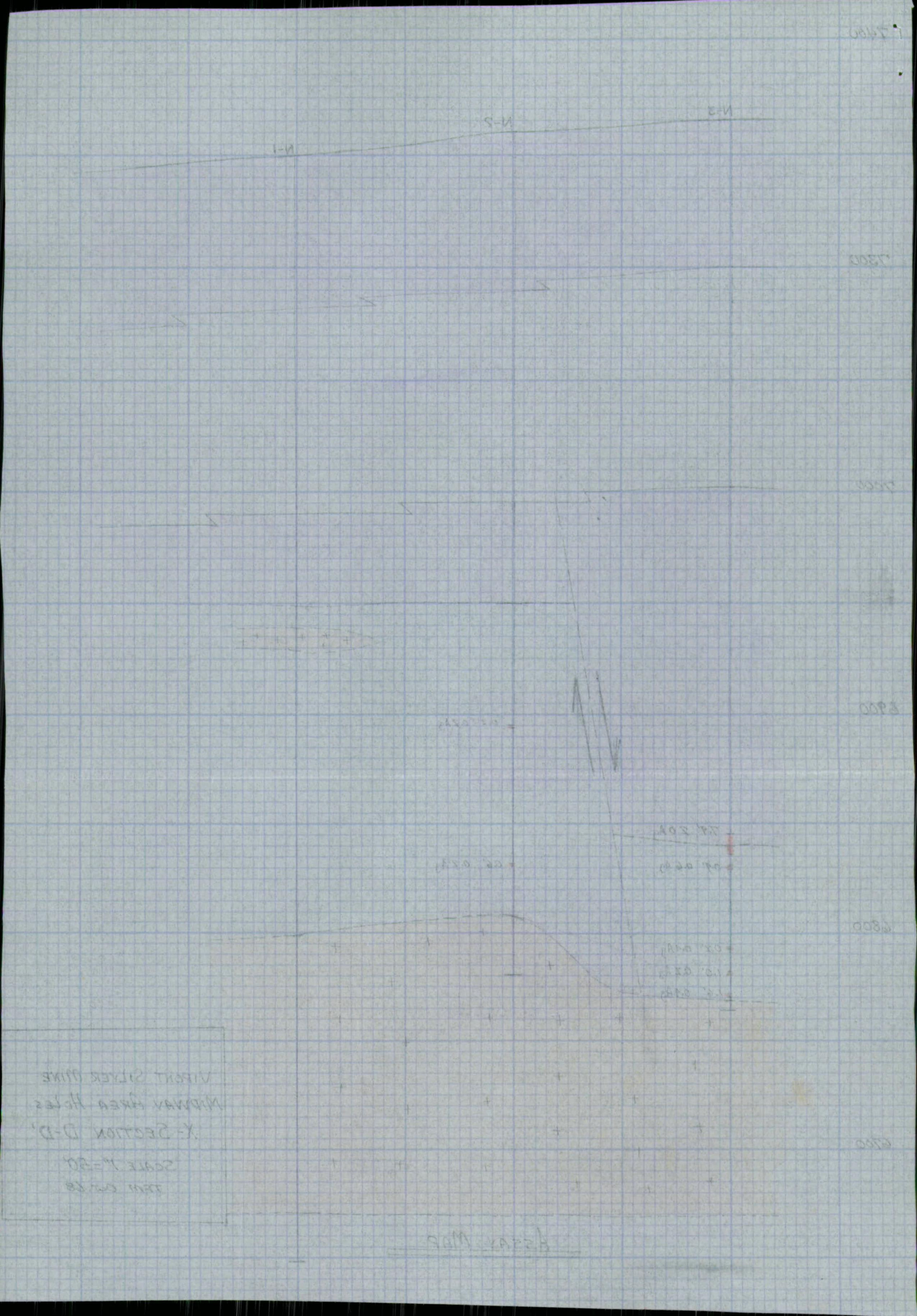
VIPONT SILVER MINE
X-SECTION F-F'
HOLE I-1
SCALE 1" = 50' TFM, OCT, 68

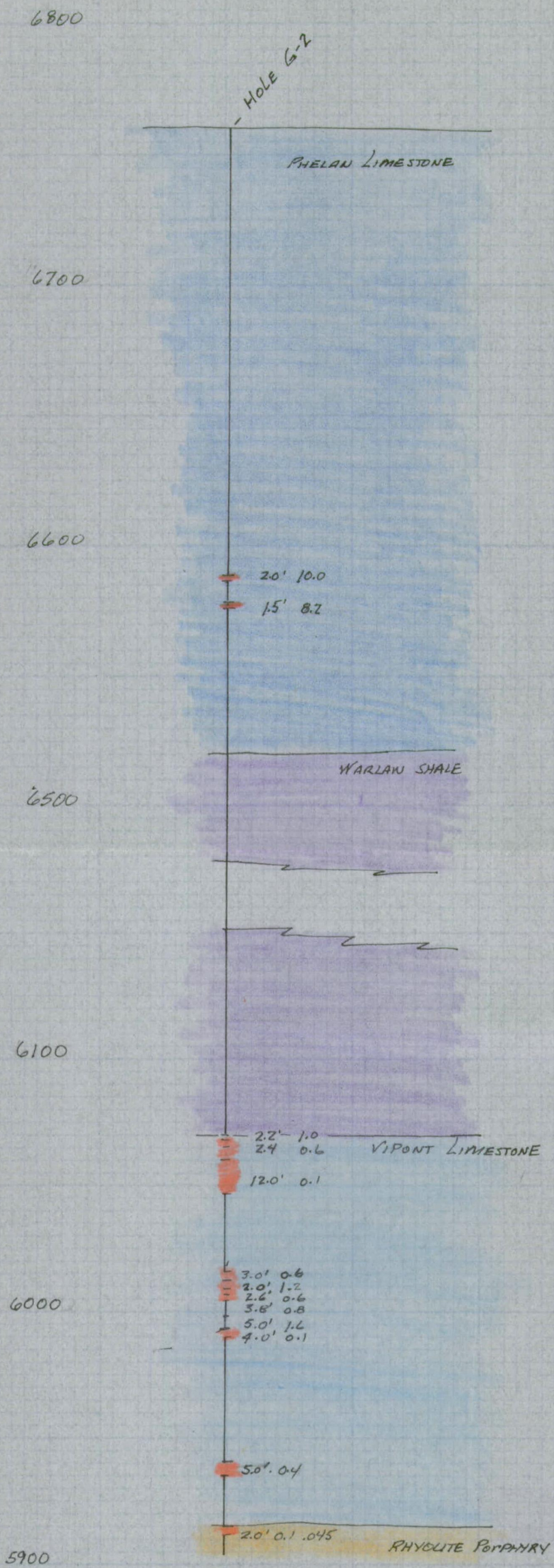



ASSAY MAP

VIPONT SILVER MINE
X-SECTION E-E'
HOLE M-3 & M-2
SCALE 1" = 50'
TFM OCT. 68


7400
7300
7000
6900
6800
6700
N-3
N-2
N-1
0.2' 0.2 Ag
7.9' 2.0 Ag
0.7' 0.6 Ag
0.6' 0.2 Ag
0.2' 0.4 Ag
1.0' 0.2 Ag
1.6' 0.4 Ag
VIPONT SILVER MINE
MIDWAY AREA HOLES
X-SECTION D-D'
SCALE 1"=50'
TFM OCT. 68
ASSAY MAP






ASSAY MAP

VIPONT SILVER MINE
X-SECTION G-G'
HOLE G-2
SCALE 1" = 50 TAM O.T. 68

MAPS & X-SECTIONS

COLUMBIAN NATURAL CLASP NO. 75N
®
UNITED STATES ENVELOPE COMPANY
7½ X 10½

OME-6452 Staff
(Silver)

RT 1 BOX 154
CATALDO, IDAHO
83810

Oct 17, 1968

MR. W. WILLIAM HASLER,
U.S.G.S.
FEDERAL CTR. DENVER, COLO. 80225
O.M.E. BUILDING 53. ROOM 203

COPY
OCT 24 1968
INTERNAL SECURITY
gla 1/30
1/20 m
1/10
HK 1/30

DEAR MR, HASLER.

I HAVE BEEN BUSY ON THE REPORT, I AM WORKING ON IT IN MY SPARE TIME. AT THE MOMENT I AM WAITING FOR A MAP FROM SALT LAKE CITY.

I SHOULD HAVE THE REPORT TO YOU ABOUT 1 NOV. 68.

SINCERLY YOURS
Tom T. Miller

x My new address is written above.

Office of Minerals Exploration
Building 53 Room 203

October 8, 1968

Mr. Thomas Miller
Star Route
Bonner, Montana 59823

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HK ~~120~~

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

This is to inquire when we may expect the final report on the above-stated subject, as we are anxious to close out the contract.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
OME-6452
OME chron
Mr. Hasler

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

September 13, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject OME-6452 (Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

Transmitted herewith are the "Government's copy" and "Budget and Finance's Copy" of a termination agreement on the above-stated subject. The "Field Office Copy" and "Extra Copy for Field Use" have been retained the Denver OME field office, and the "Operator's Copy" has been retained by Mr. Miller.

Also enclosed is a copy of a letter from Mr. Miller regarding the final report.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Copy: Washington

RECEIVED
SEP 11 1968
Denver, Colorado

Star Route
Drummond, Montana 59832
September 7, 1968

Mr. J. William Hasler
U.S.G.S.
Federal Center
Building 53, Room 203
Denver, Colorado 80225

Dear Mr. Hasler:

Please find enclosed three signed copies of the Termination Agreement.

I am working on the final report and shall try and get it to you as soon as possible.

As I am busy with another job now, it will take a little time to complete the report.

Hope all is well with you.

Sincerely,

Thomas F. Miller

Thomas F. Miller

Office of Minerals Exploration
Building 53 Room 203

| INITIALS | CODE |
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| HK | 120 |

REGISTERED AIR MAIL
RETURN RECEIPT REQUESTED

September 5, 1968

Mr. Thomas F. Miller
Star Route
Bonner, Montana 59823

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

On August 16, 1968 we sent you an original and three copies of a proposed Termination Agreement to the subject contract for your execution. We would appreciate your transacting the business required, as well as writing and transmitting a final report at your earliest convenience, in order for us to complete termination of the subject contract.

The $200.00 presently being withheld will be refunded to you upon completion and transmittal of your final report.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
OME chron
Mr. Hasler
OME-6452

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
O. M. E.
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AUG 19 1968
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August 16, 1968

Mr. Thomas F. Miller
Star Route
Bonner, Montana 59823

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

Enclosed are the original and three copies of a proposed Termination Agreement (two pages) to the subject contract, signed for the Government.

If the proposed agreement is satisfactory, please sign all four copies, retain the "Operator's Copy" and return the other copies to this office.

If any part of the proposed agreement does not have your approval, the original and all copies are to be returned to this office together with the proposed changes for consideration.

Sincerely yours,

JFR. for

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

cc: Chief, OME
OME chron
OME 6452
Mr. Hasler

SURNAME COPY

8/9/68 Hirkemo 120

8/12/68 Johnson 110

220

8/13/68 Peterson

Inuetz 8/13

**AIRMAIL**

**Memorandum**

**To:** Field Officer, Region III

**From:** Chief, Office of Minerals Exploration

110

**Subject:** OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

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Enclosed are the original and three copies of a proposed Termination Agreement (two pages) to the subject contract, signed for the Government. An extra copy is enclosed for field use.

If the proposed agreement is satisfactory to you and the Operator, all four copies should be signed by Mr. Miller, and copies distributed as usual.

If any part of the proposed agreement does not have your approval or that of the Operator, the original and all copies are to be returned to this office together with the proposed changes for consideration.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
Mr. Kirkemo
130

HKirkemo/gla 8-9-68

MME FORM 6 REFERENCE SLIP

REV. 2-59 OFFICE OF MINERALS EXPLORATION

| TO: | DATE | INITIALS |
|---|---|---|
| 1. ~~Assoc. Sol., MR, Room 6554 (Through Room 6042)~~ | INTERIOR | DEPT. |
| 2. Mr. Kirkemo, Room 4459 | AUG 8 - 1968 | |
| 3. | SOLICITOR | |
| 4. | | |
| 5. | | |
| FROM: Chief, OME | | |

FOR: Check items for action desired

____ Action ____ Reply for signature of ____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS:

SOLICITOR

G-68-2191, 3192

JUL 25 1968

FROM SOLICITOR

INTERIOR DEPT.

FOR SIGNATURE

RECEIVED

JUL 25 1968

Division of Mineral Resources and General Legal Services

INT.-DUP. SEC., WASH., D.C. M56300-62

120 HK

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DRAFT 7/22/68
HKirkemo/gla

To Royal 7/24/68

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6452

TERMINATION AGREEMENT

It is agreed this _____ day of _____, 1968, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Thomas F. Miller, hereinafter called the "Operator," parties to that certain Exploration Contract No. 2220 (OME-6452), dated June 14, 1966, as amended, hereinafter called the "Contract," that:

1. Effective November 22, 1967, the Contract and all obligations of the parties thereunder, except as herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute only to the allowable costs incurred prior to said effective date.

3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including furnishing to the Government three copies of a final report (in addition to the final monthly report) which shall include a geological and engineering evaluation of the results of the work performed under the Contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the related costs thereof.

4. All rights of the Government respecting certification of possible production, the payment of royalties on production percentage royalty and liens to secure the payment thereof, reports (including preservation of the Operator's records), accounts, audits, and the right to recover any overpayment are hereby preserved.

5. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract except as otherwise provided in this termination agreement.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By_____
Chief, Office of Minerals Exploration
U. S. Geological Survey

THOMAS F. MILLER

_____

Office of Minerals Exploration
Building 53 Room 203

July 22, 1968

REGISTERED AIR MAIL
RETURN RECEIPT REQUESTED

OFFICIAL COPY
O. M. E.
RECEIVED
JUL 23 1968
INITIALS | CODE
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Mr. Thomas F. Miller
Star Route
Bonner, Montana 59823

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

During a telephone conversation with the Washington office this morning, it was decided that it would be wise to terminate the contract as you have requested.

Therefore, if you will submit your final report, including the amount of progress made, we shall proceed.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
OME-6452
OME chron
Mr. Hasler

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
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July 17, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Enclosed are the original and four copies of proposed Amendment No. 3 (four pages and one map) to the subject contract.

The Amendment No. 3 was returned unsigned by the Operator and his statement that he had thoroughly reviewed the drilling of the three additional holes as proposed in Amendment No. 3, and is still of the opinion that it would be better to drill the holes 300 feet downdip from holes V-3 through V-6 as he originally proposed. The only holes that penetrated mineralized material of any great significance were holes V-3 and V-6, and the values obtained from these holes were reviewed in my memorandum dated March 8, 1968. I felt like the additional holes should be drilled before terminating the contract, however since the operator feels that the offset holes should be drilled down dip, I think it best to terminate the contract. I have indicated that to him, but will await your concurrence to inform him formally.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Office of Minerals Exploration
Building 53 Room 203

July 17, 1968

OFFICIAL COPY
O. M. E.
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REGISTERED AIR MAIL
RETURN RECEIPT REQUESTED

Mr. Thomas F. Miller
Star Route
Bonner, Montana 59823

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

Your letter, dated June 28, 1968 arrived in this office July 5, 1968 with the enclosed proposed Amendment No. 3. Please pardon my delay in replying to your letter of June 28. Our recommendations were designed to more adequately explore the downward extension of the Vipont ore zone as near the ore body as is feasible, that is, the area between diamond drill holes V-3 through V-6 and the ore body. However, since you feel that it is better to drill the proposed holes 300 feet down dip from drill holes V-3 through V-6, I doubt that Washington would agree to this proposal as they feel it is better to explore for new and undiscovered ore deposits as near the known ore body as is advisable, and I agree with this reasoning. Since you still feel it is more advisable to explore for the extensions of possible ore from the Vipont mine 300 feet further downdip than the material penetrated in holes V-3 through V-6 we feel it is preferable to consider the exploration work as having been completed and terminate the contract at this point. I am returning the Amendment No. 3 to Washington with your letter and advising them of my decision. I shall inform you as soon as possible.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
OME-6452
OME chron
Mr. Hasler

Star Route
Bonner, Montana 59823
June 28, 1968

OME Region III
RECEIVED
JUL 5 - 1968
Denver, Colorado

Mr. J. William Hasler
U.S. Geological Survey, OME
Federal Center, Building 53, Room 203
Denver, Colorado 80225

Re: O.M.E.--6452 (Silver) Contract 2220
Thomas F. Miller
Vipont Property, Box Elder County, Utah

Dear Mr. Hasler:

Enclosed are the original and three copies of Proposed Amendment No. 3 (four pages and one map) to the subject contract unsigned by myself.

I have thoroughly reviewed the drilling of three additional holes as proposed in this amendment and conclude that it would be better to drill them 300' down dip from holes V-3 thru V-6, as I originally proposed.

As you do not agree with me, I feel it would be in order to say the drilling is concluded and for me to write the final report as required in the contract.

Please let me know your feelings and final conclusion on this matter and let me know. I am anxious to commence with the final report.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

Office of Minerals Exploration
Building 53 Room 203

OFFICIAL COPY
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June 6, 1968

Mr. Thomas F. Miller
Star Route
Bonner, Montana 59823

Re: OME-6542 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

Enclosed are the original and three copies of proposed Amendment No. 3 (four pages and one map) to the subject contract, signed for the Government.

If the proposed amendment is satisfactory to you all four copies should be signed by you and the "Government's" copy, "Budget and Finance's" copy, and "Field Office's" copy should be returned to this office for distribution. Please retain the "Operator's" copy for your files.

If any part of the proposed amendment does not meet with your approval, the original and all copies are to be returned to this office together with the proposed changes for consideration.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

cc: Chief, Office of Minerals Exploration ✓ OME chron Mr. Hasler OME-6542

Government's Copy

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6452

AMENDMENT NO. 3

It is agreed this 3 day of June, 1968, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Thomas F. Miller, hereinafter called the "Operator," that Exploration Contract 2220 (OME-6452), dated June 14, 1966, as amended, is further amended effective May 15, 1968, as follows:

1. The time fixed by Article 1(a) of the contract as amended by Amendment No. 1 for completion of the work is extended from twenty-four (24) months to thirty (30) months from the date of the contract, or until December 14, 1968.

2. The maximum period for royalty payments and for the lien to secure payments thereof provided for in the contract is extended from ten (10) to eleven (11) years from the date of the contract.

3. (a) Work under the contract may be suspended during the period beginning November 22, 1967, and ending not later than July 1, 1968.

(b) The Government shall not contribute to any costs of rehabilitation or repair which in its opinion would not have occurred had there been no suspension of the work.

(c) The Operator, at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work.

4. In Exhibit A:

(a) Under the heading Description of the Work, the first paragraph, as revised by Amendment No. 2, is further revised to read as follows:

NOTE: Operator's Copy, Budget and Finance's Copy, Field Office's Copy, Extra Copy for Field Office, and Extra Copy destroyed, 7/22/68
gla

"The work shall consist of bulldozing access roads to about 20 drill sites, leveling the sites, and drilling about 20 holes totalling not more than 11,495 feet."

(b) To the list of drill holes proposed in the Vipont area there is added the following drilling data and new paragraph:

| Hole No. | Feet of Non-core Drilling | Feet of Core Drilling | Total Length Feet |
|---|---|---|---|
| V-8 | 600 | 135 | 735 |
| V-9 | 600 | 135 | 735 |
| V-10 | 440 | 95 | 535 |

"The drill sites for these holes are shown on Figure 2, as amended, entitled, 'Map Showing Proposed Drill Holes, Vipont Property, Ashbrook Mining District, Box Elder County, Utah,' which is attached and made part hereof."

(c) Under the heading Estimated Costs of the Project, Actual Costs, Category (1) Independent Contracts, as amended by Amendment No. 2, is revised to read as follows:

| | |
|---|---|
| Mobilization and demobilization, one bulldozer, two operations @ $100.00 each | $ 200.00 |
| Bulldozing access roads and preparing drill sites | 500.00 |
| D-4 50 hours @ $10.00/hour<br>D-6 40 hours @ $12.50/hour<br>D-7 33-1/3 hours @ $15.00/hour | |
| Non-core and diamond core drilling, 11,495 feet | 61,740.00 |

| | | |
|---|---|---|
| Non-core drilling @ $4.70/foot 1/ | | |
| BX wire line core drilling @ $6.90/foot 1/ | | |
| AX or AXM core drilling @ $6.80/foot 1/ | | $62,440.00 |

1/ Original footnote unchanged.

Category (2) Personal Services, as amended by Amendment No. 2, is revised to read as follows:

None except:

| | | |
|---|---|---|
| 1 Supervisor-geologist-engineer 17 months @ $750.00/month | $12,750.00 | |
| 1 Outside geological consultant, 10 days @ $75.00/day | 750.00 | $13,500.00 |

Category (3) Operating Materials and Supplies

| | | |
|---|---|---|
| No revision. Total remains unchanged. | | 430.00 |

Category (7) Miscellaneous is revised to read as follows:

None except:

| | | |
|---|---|---|
| Assaying of 350 core and sludge samples for gold and silver @ $3.00/sample | $ 1,050.00 | |
| Consultant's travel expenses Salt Lake City, Utah, to Vipont property and return, 1,500 miles @ $0.10/mile | 150.00 | |
| Per diem, 10 days @ $16.00/day | 160.00 | |
| Payroll taxes, F.I.C.A., insurance, etc. | 693.00 | |

| | | |
|---|---|---|
| Accounting and office expenses 12 months @ $31.25/month | $ 375.00 | $ 2,428.00 |
| Total Estimated Actual Costs (rounded) | | $78,800.00 |
| Government Participation @ 75% | | $59,100.00 |

This amendment shall not be construed to increase the estimated total cost of the contract, or the aggregate amount which the Government may be required to contribute.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
Chief, Office of Minerals Exploration
U. S. Geological Survey

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THOMAS F. MILLER

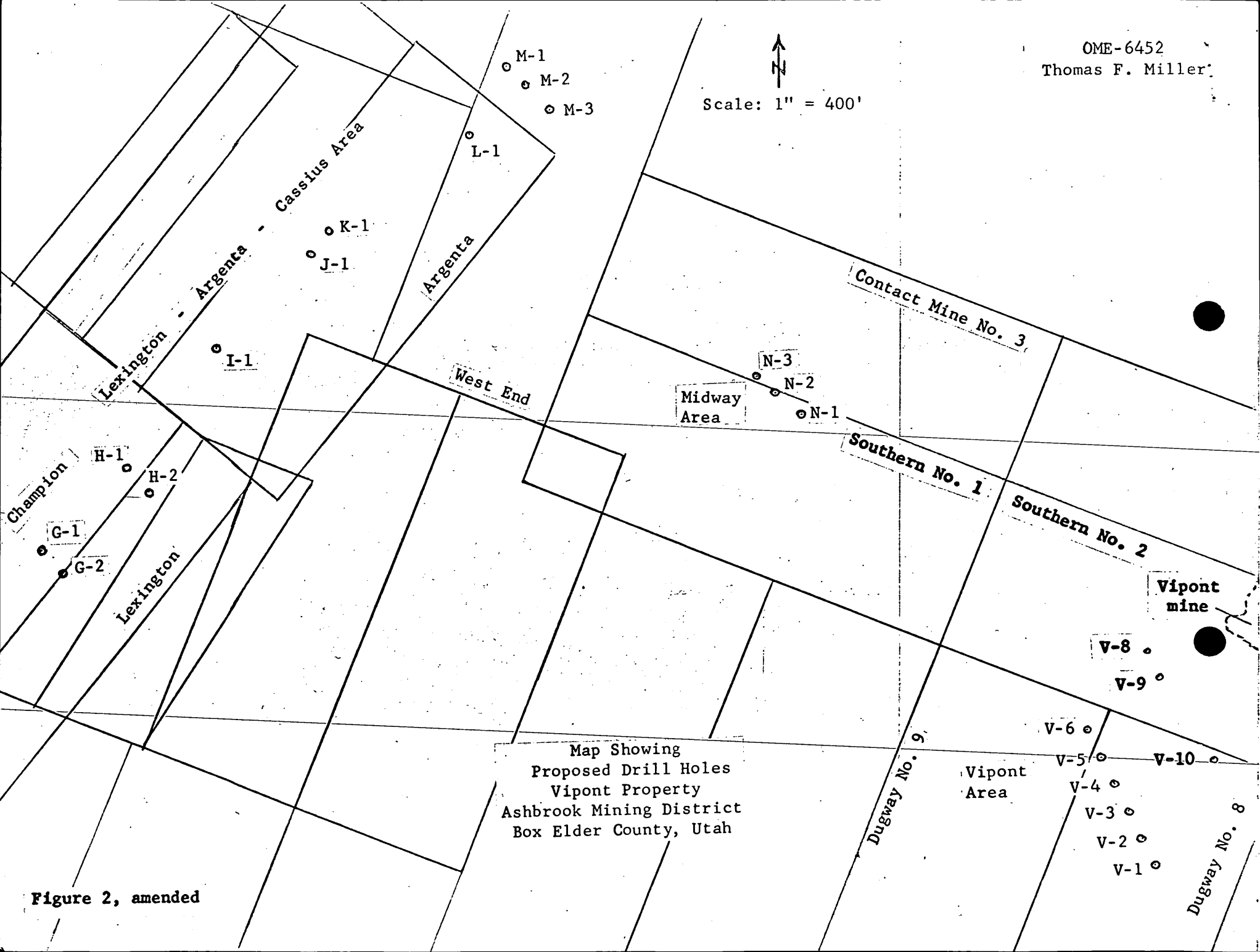


**Figure 2, amended**

MME Form 7
(2/63)

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| " | Johnson | |
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May 21, 1968

Memorandum

To: The File

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Justification for Amendment No. 3

It appears unlikely that significantly larger ore bodies can be expected in the Vipont area than are indicated on old maps submitted with the application. One of the holes (V-6) already drilled on the project may have intersected a mineralized structure which is typical of the ore bodies shown on the old maps, and hole V-3 may have intersected the margin of another ore body.

The three holes proposed for drilling under this amendment would help determine continuity of ore bodies beyond the southwestern limits of the old mine workings. The proposed holes offer the best chance and the last opportunity to make a success of this project. If the results are favorable, there would be reason for the Operator to consider additional exploration and development that possibly would lead to new production.

Details of the Operator's proposal to drill additional holes in the Vipont area, the Field Officer's review, the Government's alternate suggestion, the Operator's concurrence, and the Field Officer's recommendation are explained in memoranda and letters dated January 23, March 8, March 26, April 17, and May 6, 1968, which are filed in the docket.

No additional funds are required to meet the costs estimated for the three holes. A Report of Review of settlements on the contract through December 1967 was issued in February 1968.

Harold Kirkemo

Harold Kirkemo

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
Mr. Kirkemo

HKirkemo/gla 5-21-68

Office of Minerals Exploration
Building 53 Room 203

June 28, 1968

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Mr. Thomas F. Miller
Star Route
Bonner, Montana 59823

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract No. 2220

Dear Mr. Miller:

Proposed Amendment No. 3 pertaining to the subject contract was mailed to you on June 6, 1968 with a return receipt requested. As of today, June 28, 1968, we have not been notified whether or not you received the amendment which was to be signed by you and returned to us, properly executed, if it meets your approval.

Will you please notify us of your plans as soon as possible. Also, will you please send us a telephone number, and the name it is listed under.

Sincerely yours,

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
cc: OME chron
Mr. Hasler
OME-6452

Office of Minerals Exploration
Building 53 Room 203

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JUL 1 1968

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June 27, 1968

Mr. Homer Noble
Ventura Oil Company
510 Midland Savings Building
Denver, Colorado 80202

Subject: OME-6524 (Silver)
Ventura Oil Company
Mountain Top and Terrible 3 Mines
Ouray and San Miguel Counties, Colorado
Contract 2241

Dear Mr. Noble:

Enclosed are the original and three copies of proposed Amendment No. 2 (two pages) to the subject contract, signed for the Government.

If the proposed amendment is satisfactory, please sign all four copies, retain the "Operator's Copy" and return the other copies to this office.

If any part of the proposed amendment does not have your approval, the original and all copies are to be returned to this office together with the proposed changes for consideration.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

cc: Chief, OME
OME-6524
OME chron
Mr. Hasler

MME Form 7
(2/63)

OFFICIAL FILE COPY

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**AIRMAIL**

**Memorandum**

**To:** Field Officer, Region III

**From:** Chief, Office of Minerals Exploration

**Subject:** OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Enclosed are the original and three copies of proposed Amendment No. 3 (four pages and one map) to the subject contract, signed for the Government. An extra copy is enclosed for field use.

If the proposed amendment is satisfactory to you and the Operator, all four copies should be signed by Mr. Miller, and copies distributed as usual.

If any part of the proposed amendment does not have your approval or that of the Operator, the original and all copies are to be returned to this office together with the proposed changes for consideration.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Mr. Kirkemo
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HKirkemo/bsl 5/31/68

MME FORM 6 REFERENCE SLIP
REV. 2-59 OFFICE OF MINERALS EXPLORATION

| TO: | DATE | INITIALS |
|---|---|---|
| 1. ~~Assoc. Sol. - Mr, Room 6554 (Through Room 6022)~~ | | |
| 2. Mr. Kirkemo, Room 4459 | | |
| 3. | | |
| 4. | | |
| 5. | | |

FROM: Chief, OME

FROM SOLICITOR MAY 20 1968

FOR SIGNATURE

FOR: Check items for action desired

____ Action ____ Reply for signature of ____
____ Approval ____ Investigate ____ Surname
____ Comment ____ Recommendations ____ Signature
____ Conference ____ Rewrite ____ File
____ Instructions ____ Your information

REMARKS:

Please return map.

E-68-2126.3192

SOLICITOR

RECEIVED
MAY 22 1968
Division of Mineral Resources
and General Legal Services

MAY 22 1968
INTERIOR DEPT.

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HKirkemo/gla

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6452

AMENDMENT NO. 3

It is agreed this _____ day of _____, 1968, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Thomas F. Miller, hereinafter called the "Operator," that Exploration Contract 2220 (OME-6452), dated June 14, 1966, as amended, is further amended effective May 15, 1968, as follows:

1. The time fixed by Article 1(a) of the contract as amended by Amendment No. 1 for completion of the work is extended from twenty-four (24) months to thirty (30) months from the date of the contract, or until ~~November~~ December 14, 1968.

2. The maximum period for royalty payments and for the lien to secure payments thereof provided for in the contract is extended from ten (10) to eleven (11) years from the date of the contract.

3. (a) Work under the contract may be suspended during the period beginning November 22, 1967, and ending not later than July 1, 1968.

(b) The Government shall not contribute to any costs of rehabilitation or repair which in its opinion would not have occurred had there been no suspension of the work.

(c) The Operator, at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work.

In Exhibit A:

4. (a) Under the heading Description of the Work, the first paragraph, as revised by Amendment No. 2, is further revised to read as follows:

"The work shall consist of bulldozing access roads to about 20 drill sites, leveling the sites, and drilling about 20 holes totalling not more than 11,495 feet."

(b) Add to the list of drill holes proposed in the Vipont area the following data and a new paragraph:

| Hole No. | Feet of Non-core Drilling | Feet of Core Drilling | Total Length Feet |
|---|---|---|---|
| V-8 | 600 | 135 | 735 |
| V-9 | 600 | 135 | 735 |
| V-10 | 440 | 95 | 535 |

"The drill sites for these holes are shown on Figure 2, amended, entitled, 'Map Showing Proposed Drill Holes, Vipont Property, Ashbrook Mining District, Box Elder County, Utah,' which is attached and made part hereof."

(c) Under the heading Estimated Costs of the Project, Actual Costs, Category (1) Independent Contracts, as amended by Amendment No. 2, is revised to read as follows:

| | |
|---|---|
| Mobilization and demobilization, one bulldozer, two operations @ $100.00 each | $ 200.00 |
| Bulldozing access roads and preparing drill sites | 500.00 |
| D-4 50 hours @ $10.00/hour<br>D-6 40 hours @ $12.50/hour<br>D-7 33 hours @ $15.00/hour | |

insert 1/3

Non-core and diamond core drilling,

11,495 feet 61,740.00

Non-core drilling @ $4.70/foot 1/

BX wire line core drilling @ $6.90/foot 1/

AX or AXM core drilling @ $6.80/foot 1/ _____ $62,440.00

1/ Original footnote unchanged.

Category (2) Personal Services, as amended by Amendment No. 2, is revised to read as follows:

None except:

1 Supervisor-geologist-engineer

17 months @ $750.00/month 12,750.00

1 Outside geological consultant,

10 days @ $75.00/day 750.00 13,500.00

Category (3) Operating Materials and Supplies

No revision. Total remains unchanged. 430.00

Category (7) Miscellaneous is revised to read as follows:

None except:

Assaying of 350 core and sludge samples

for gold and silver @ $3.00/sample $ 1,050.00

Consultant's travel expenses

Salt Lake City, Utah, to Vipont

property and return,

1,500 miles @ $0.10/mile 150.00

Per diem, 10 days @ $16.00/day 160.00

| | | |
|---|---|---|
| Payroll taxes, F.I.C.A., insurance, etc. | 693.00 | |
| Accounting and office expenses | | |
| 12 months @ $31.25/month | 375.00 | $ 2,428.00 |
| Total Estimated Actual Costs (rounded) | | $78,800.00 |
| Government Participation @ 75% | | $59,100.00 |

This amendment shall not be construed to increase the estimated total cost of the contract, or the aggregate amount which the Government may be required to contribute.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By_____
Chief, Office of Minerals Exploration
U. S. Geological Survey

THOMAS F. MILLER

_____

OFFICE RECEIVED
MAY 10 1968
Denver, Colorado

Star Route
Banner, Montana 59823
May 6, 2968

OFFICIAL
COPY
O. M. E.
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Mr. William Hasler
U.S. Dept. of Interior, OME
Building 53, Room 203
Federal Center
Denver, Colorado 80225

Subject: OME—6452 (Silver) Thomas F. Miller, Vipont Mine,
Box Elder Co., Utah

Contract 2220

Dear Mr. Hasler,

I hope to hear from you soon. My telephone number is 406-794-2135.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 203

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May 6, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Enclosed is a letter from the subject operator dated April 22, 1968 which was not received in my office until May 2, 1968. The envelope was postmarked at Bonner, Montana April 22, 1968.

The operator has reviewed my letter to him concerning our recommendations to complete proposed holes V-8 and V-9 and V-10 as we suggested and agrees with our recommendations. The operator, however, is requesting that an additional charge of $500.00 for mobilization of the diamond drilling equipment when drilling commences this spring. I would think this would be a reasonable allowable cost and recommend that the contract be amended to transfer $500.00 from drilling footage to allow for mobilization of the drill rigs this spring.

This should complete the exploration work unless additional ore is penetrated by proposed holes V-8, V-9 or V-10, and more drilling is then indicated. The estimated cost to complete proposed holes V-8, V-9 and V-10 will be $10,730.00.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Star Route
Bonner, Montana 59823
April 22, 1968

OME Region III
RECEIVED
MAY 2 - 1968
Denver, Colo.

Mr. J. William Hasler
Dept. of the Interior, OME
Denver Federal Center, Building 53, Room 203
Denver, Colorado 80225

Re: OME-6452 (Silver) Thomas F. Miller, Vipont Property, Box Elder County, Utah, Contract 2220

Dear Mr. Hasler:

I have reviewed your recent letter and would like to go ahead and drill the holes that you have suggested. You may remember that we discussed this possibility one time together. I agree with you that V-8 and V-9 should be drilled first, and if significant showings are encountered in one of them, possibly V-10 would be drilled.

Would you please review Joy's letter concerning the additional drilling. We do have our slight differences, but I should think things could be worked out so all concerned will be satisfied.

May I suggest that the government allow the $500.00 mobilization charge for Joy, and that we drill the holes with NX fittings. This would be better for core recovery if we hit a hole like V-5 again. The rotary cost of $4.70 would remain the same. The additional cost over your projection would be $865.00.

If you do not agree with me, just exclude it from the new amendment and I will pay the difference to Joy.

Other than the above suggestions, the proposal is satisfactory to me. I would appreciate hearing from you as soon as possible.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

encl.

JOY MANUFACTURING COMPANY
900 WOODLAND AVENUE • MICHIGAN CITY, INDIANA 46360

March 12, 1968

OME Region III
RECEIVED
MAY 2 - 1968
Denver, Colorado

Mr. Tom Miller
P. O. Box 267
Oakley, Idaho

Dear Tom:

Thanks for your letter of March 10th outlining the attitude of the Government personnel concerning the work near Oakley, Idaho. The Government personnel asks for "other reasons". You might mention the fact that we have drilled more than the minimum guaranteed footage. We recessed the work in the winter of 1966, as well as in the winter of 1967. These stoppages have been costly to us; therefore, we feel that we should be entitled to a mobilization charge of $500.00 when the drilling is resumed this summer. Needless to say, there have been increases in the cost of labor and in the cost of materials since the work was started in 1966.

5/9/68
Hasler recommends
Keep at
$6.40
in contract
~~6.90~~

I appreciate your suggestion on drilling the three additional holes with NX fittings at a price of $7.90 per foot. If the Government does not go along with your suggestion, we will complete three additional holes at the old prices. However, we are somewhat hesitant since we feel that this may not be a profitable venture. I will await word from you. I trust that we can work out something acceptable to all parties concerned.

Yours truly,

JOY MANUFACTURING COMPANY

J M Murray

J. M. Murray, Manager
Contract Drill Division

JMM:rh

cc: Mr. Tom Miller
Star Route
Bonner, Montana 59823

Office of Minerals Exploration
Building 53 Room 203

May 3, 1968

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HK 120

Mr. Thomas F. Miller
Star Route
Bonner, Montana 59823

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

This letter is to explain the delay in answering your letter. Your letter, dated April 22, 1968, and postmarked Bonner, Montana April 22, 1968 was not received in this office until yesterday, May 2, 1968. Immediate attention is being given your communication and you will be hearing from us in the near future. We have been unable to locate a telephone number for you, and would appreciate knowing if you have a telephone and if so, what your number is.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, Office of Minerals Exploration
OME chron
Mr. Hasler
OME-6452

Office of Minerals Exploration
Building 53 Room 203

April 17, 1968

Mr. Thomas F. Miller
Star Route
Bonner, Montana 59823

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

We have reviewed your request for additional drilling in the Vipont Mine Area using funds remaining in the contract. It is our opinion that the results of drilling holes V-1 through V-6 do not support your proposal to drill three additional holes located even farther from the mine. We would suggest an alternate proposal to drill the additional holes you propose located about midway between the V series of holes and the Vipont mine.

It appears unlikely that we can expect any significantly larger ore bodies in the Vipont area than those indicated on the old maps submitted with the application. Hole V-6 seems to have intersected a mineralized structure which is typical of the narrow, elongate stoped areas in the vicinity of the Main Incline (R-94 shaft) and the P-39 Incline shown on the old maps. Hole V-3 may have intersected the edge of one of these structures but Holes V-1, V-2, and V-4 were in unmineralized rock. If the ore trend continues southwestward from the Main Incline area, the structure probably lies between the holes already drilled.

On the basis of these observations, we suggest consideration of three holes to be drilled from the sites shown in red on the enclosed copy of your map submitted to us in a letter dated January 23, 1968. These sites were selected to intersect the general trends of ore bodies in the vicinity of the Main Incline (R-94 shaft) and P-39 Incline in the old workings. The stopes in the latter area

were larger and perhaps proposed alternate holes V-8 and V-9 would be drilled before V-10. The tentative data for these holes are as follows:

| Hole No. | Coordinates | Collar elv., ft. | Drilling, ft. Non-core | Drilling, ft. Core | Elev. bottom of hole |
|---|---|---|---|---|---|
| V-8 | 725 N., 1565 W. | 7675 | 600 | 135 | 6940 |
| V-9 | 650 N., 1535 W | 7675 | 600 | 135 | 6940 |
| V-10 | 370 N., 1350 W. | 7560 | 440 | 95 | 7025 |
| | Totals | | 1,640 | 365 | |
| | Cost per foot | | $4.70 | $6.90 | |
| | Costs (rounded) | | $7,710 | + $2,520 = $10,230 | |

The balance of $17,310.14, remaining in the contract, as determined by audit issued February 1968, is more than sufficient to accommodate the costs of drilling and other items necessary to complete the proposed exploration. If the results of these holes warrant, additional drilling could be done with the balance of funds remaining in the contract.

If this proposal is satisfactory to you we will prepare an amendment so that the work can be resumed as soon as weather permits. Please inform us as quickly as possible upon your review and consideration of this proposal, so we can proceed with the amendment. Please pardon my delay in this matter.

Sincerely yours,

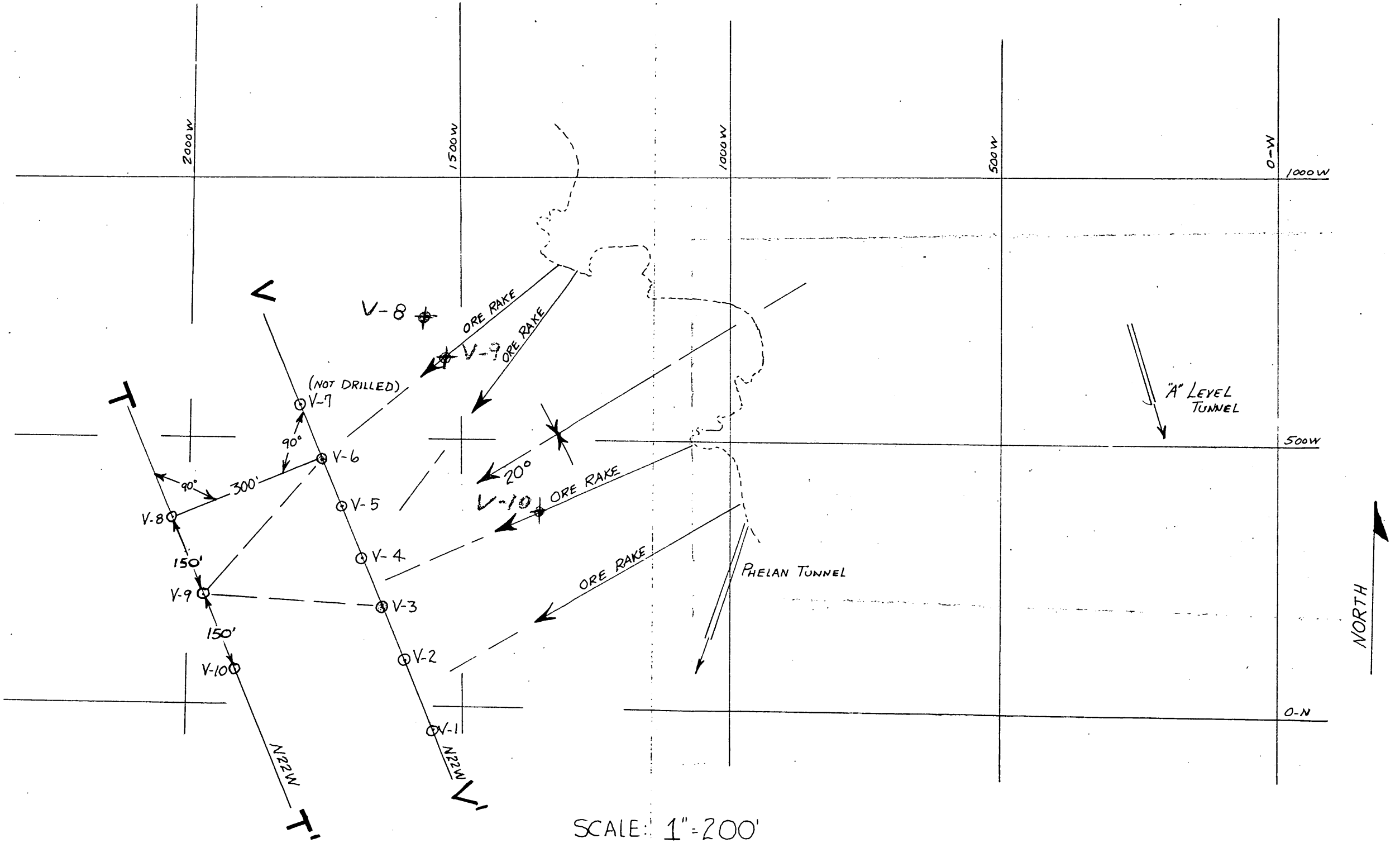
J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosure

cc: Chief, OME
OME-6452
OME chron
Mr. Hasler

ATTACHMENT NO. 1




SCALE: 1" = 200'

⊗ DIAMOND DRILL HOLE THAT HIT ORE

LOWER LIMIT OF OLD WORKINGS

Holes proposed by QME

MAP SHOWING PROJECTED ORE RAKES BELOW OLD WORKINGS ALSO LOCATION OF PROPOSED HOLES V-8, V-9, & V-10

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**AIRMAIL**

MAR 2 6 1968

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

We have reviewed the Operator's request and your recommendation for additional drilling in the Vipont mine area using funds remaining in the contract. The results of drilling holes V-1 through V-6 do not support the proposal to drill three additional holes located even farther from the mine. However, we would suggest an alternate proposal to drill additional holes located about midway between the V-series of holes and the Vipont mine.

It appears unlikely that we can expect any significantly larger ore bodies in the Vipont area than those indicated on the old maps submitted with the application. Hole V-6 seems to have intersected a mineralized structure which is typical of the narrow, elongate stoped areas in the vicinity of the Main Incline (R-94 shaft) and the P-39 Incline shown on the old maps. Hole V-3 may have intersected the edge of one of these structures but Holes V-1, V-2, and V-4 were in unmineralized rock. If the ore trend continues southwestward from the Main Incline area, the structure probably lies between the holes already drilled.

On the basis of these observations, we suggest consideration of three holes to be drilled from the sites shown in red on the enclosed copy of a map submitted with the Operator's letter of January 23, 1968. These sites were selected to intersect the general trends of ore bodies in the vicinity of the Main Incline (R-94 shaft) and P-39 Incline in the old workings. The stopes in the latter area were the larger and perhaps proposed alternate holes V-8 and V-9 would be drilled before V-10. The tentative data for these holes are as follows:

| Hole No. | Coordinates | Collar elv., ft. | Drilling, ft. Non-core | Drilling, ft. Core | Elev. bottom of hole |
|---|---|---|---|---|---|
| V-8 | 725 N., 1565 W. | 7675 | 600 | 135 | 6940 |
| V-9 | 650 N., 1535 W. | 7675 | 600 | 135 | 6940 |
| V-10 | 370 N., 1350 W. | 7560 | 440 | 95 | 7025 |
| | Totals | | 1,640 | 365 | |
| | Cost per foot | | $4.70 | $6.90 | |
| | Costs (rounded) | | $7,710 | + $2,520 | = $10,230 |

The balance of $17,310.74 remaining in the contract, as determined by audit issued February 1968, is more than sufficient to accommodate the costs of drilling and other items necessary to complete the proposed exploration. If the results of these holes warrant, additional drilling could be done with the balance of funds remaining in the contract.

If this proposal is satisfactory to the Operator and you concur with it, we will prepare an amendment so that work can be resumed as soon as weather permits.

FRANK E. JOHNSON

Frank E. Johnson

Enclosure

cc: Director's Reading File
Division File
Economic Geology File
OME docket
OME Reading File
Mr. Kirkemo
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HKirkemo/gla 3-25-68

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March 21, 1968

Memorandum

To: Chief, Branch of Budget and Finance

From: Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Enclosed is a copy of a letter dated March 19, 1968, from the Field Officer, Region III, to the Operator transmitting a copy of the Report of Review issued in February 1968, together with a copy of the review, on the subject contract.

FRANK E. JOHNSON cc

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division file
Economic Geology File
OME docket
OME Region III
Mr. Kirkemo

GLAult/a 3-21-68

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration
Building 53 Room 203

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March 8, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

The purpose of the exploration project on the Vipont Mine area, Box Elder County, Utah is to explore by core and non-core drilling from surface drill sites for silver-bearing ore bodies in the Vipont limestone formation (Mississippian? age), the Phelan limestone formation (Pennsylvanian age), and other favorable formations that may be present below the unfavorable Wardlaw shale formation.

To date the operator has completed fifteen holes for a total of 6,705 feet of non-core and 2,679.4 feet of core drilling in the Vipont, Midway, and Lexington-Argenta-Cassius areas. A review of the exploration work to date indicates that amounts of mineralized material found in the Midway and Lexington-Argenta-Cassius area is not very encouraging. Assays from drill hole N-3 showed values ranging from a trace of gold to 2.0 oz. silver per ton, at varying intervals in the Vipont limestone.

Drill hole G-2 in the Lexington-Argenta-Cassius area penetrated two possible mineralized zones in the Phelan and Vipont limestones. Samples in the Phelan limestone assayed 10.0 oz. silver per ton between 172 - 174 feet, and 8.2 oz. silver per ton between 182 - 183.5 feet. Both samples showed a trace of gold. Some sampling in the Vipont limestone showed as much as 0.8 oz. silver per ton and are not too significant. In drill hole K-1 some sludge samples from the Phelan limestone assayed as high as 1.6 oz. silver per ton.

Denver Federal Center -- Building 53 -- Room 203
Denver, Colorado 80225

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O. M. E.
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MAR 20 1968

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| Ted | 120 |
| HK | 120 |

March 19, 1968

Mr. Thomas F. Miller
Star Route
Bonner, Montana 59823

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

Enclosed is an "Operator's Copy" of a Report of Review issued in February, 1968 on the project costs under the subject contract. I have reviewed the Report of Review, and concur in the data reported herein.

Please note that there is a difference of $4.34 between the total reported cost ($61,493.60) claimed by you and that approved by me on the latest voucher (November, 1967), and the total ($61,489.26) shown in the Report of Review. This difference is due to an overcharge of $4.34 for F.I.C.A. by you on the voucher for September, 1966 which was not deducted from the totals on subsequent vouchers. These details are explained in your letter to me dated November 16, 1966 and in Washington's letter to you dated November 28, 1966.

We are reviewing your request for drilling proposed holes as offsets from hole V-1 through V-6 in the Vipont area and will correspond with you soon regarding further drilling.

Sincerely yours,

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME (2)
OME chron
Mr. Hasler
OME-6452

MME Form 7
(2/63)

OFFICIAL FILE COPY

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MAR 13 1968

**AIRMAIL**

Memorandum

To: Field Officer, Region III

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Enclosed are the Field Office's and Operator's copies of a Report of Review issued in February 1968 on the project costs under the subject contract.

Please note that there is a difference of $4.34 between the total reported cost ($61,493.60) claimed by the Operator and approved by you on the latest voucher (November 1967), and the total ($61,489.26) shown in the Report of Review. This difference is due to an overcharge of $4.34 for F.I.C.A. by the Operator on the voucher for September 1966 which was not deducted from the totals on subsequent vouchers. These details are explained in the Operator's letter to you dated November 16, 1966, and in our letter to the Operator dated November 28, 1966.

If you concur in the facts as stated in this report, one copy should be sent to the Operator and the other copy retained for your files. Please explain to the Operator the reason for the difference noted above. As evidence of your concurrence, two copies of your letter transmitting the Operator's copy of the report should be furnished this office. If for any reason you do not concur, both copies of the report should be returned to this office with appropriate comments.

Harold Kirkemo (gla)

Harold Kirkemo

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME docket
OME Reading File
Mr. Kirkemo
130

HKirkemo/gla 3-13-68

Samples from the Wardlaw shale in Drill hole M-3 between 122 - 126 feet assayed as much as 2.0 oz. silver per ton, and a sample between 129 - 131 feet, also in the Wardlaw shale ran 1.0 oz. silver. Samples from the Vipont limestone assayed 1.6 oz. silver between 243 - 244 feet. A sludge sample at 282 feet assayed 3.3 oz. silver per ton.

Drill Hole I-1 contained as much as 4.0 oz. silver per ton and a trace of gold at 510.2 feet in the hole in the Wardlaw shale.

Drill holes V-1 and V-6 were designed to explore down dip for the possible extension of the Vipont ore body in the Vipont area. Drill hole V-1 penetrated some mineralized material between 523 and 565.2 feet in the upper part of the Vipont limestone that assayed as high as 2.0 oz. silver per ton and might average 1.0 oz. silver per ton. Drill hole V-3 penetrated mineralized material between 526 and 546.5 feet that assayed as much as 0.545 oz. gold per ton and 13.5 oz. silver per ton, .65 percent copper, 4.0 percent lead and 1.8 percent zinc. The samples throughout this interval in the Vipont limestone ranged from trace of gold, and 0.8 oz. silver to the values just stated for the interval between 544.6 - 545.0 feet, and may average 0.18 oz. gold, 3.71 oz. silver per ton. Drill hole V-6 penetrated mineralized material between 688.7 - 291.9 feet that assayed 0.06 oz. gold, 16.4 oz. silver, 0.15 percent copper, 2.6 percent lead, and 3.6 percent zinc. A sample "D" in the same interval assayed 0.06 oz. gold, 52.0 oz. silver, 0.10 percent copper, 8.0 percent lead and 0.8 percent zinc. A sample between 693.7 and 694.0 feet assayed 0.10 oz. gold, and 5.0 oz. silver per ton, all of these values are from the Vipont limestone.

Although the drilling in the Midway, and Lexington-Argenta-Cassius areas have not proven very fruitful except for added stratigraphic information it is quite encouraging that the drilling in the Vipont area, especially in holes V-3 and V-6 penetrated mineralized material that contained considerable values in silver, some in gold, copper, lead and zinc as heretofore shown.

The operator, in a letter dated January 23, 1968 requested that the Vipont area be further explored by drilling three more holes as offsets to drill holes V-3 and V-6, and are designed to penetrate the Vipont limestone down the rake of the Vipont ore body (See attached No. 1 Cross Sections V-V' and Cross Section D-D' (revised). The operator estimates a cost of the three proposed holes V-8, V-9 and V-10 to be approximately $12,000.00 for drilling, bulldozing $344.00, assaying $150.00 for a total of approximately $12,500.00 (rounded).

Approved expenditures to date have totaled $61,493.60. Drill holes V-8, V-9 and V-10, estimated to cost an additional $12,500.00 would bring the total costs of possible expenditures to $73,993.60.

This figure is $4,806.40 less than the total amount allowed in the present contract. In the justification of the proposal of the current work it was fully realized that this program was one of high risk and is considered to have a rather long shot chance of a discovery. It seems advisable, at this stage, to further explore the downward extension of the Vipont ore body as proposed by the operator, and that the operator be given approval to complete the proposed hole V-8, V-9 and V-10 as approximately shown and located on Attachment No. 1, enclosed.

Should this be favorably recommended it will necessitate amending the contract to allow for a recess from December 1st, 1967 to possibly June 15th, 1968 due to adverse weather conditions. We are currently awaiting the operator's final report as he requested termination upon submission of his November voucher, however, I think his request dated January 23, 1968 for additional drilling in the Vipont area should be allowed, as I have recommended. I feel we should have the assurance that we have adequately tested the area, before closing out the current contract. If we terminate the contract at this point I feel we may have not done an adequate job, even though the results to date have not proven the existence of a sizeable ore body.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

January 23, 1968

Proposed Alteration to OME Contract No. 2220, No. 6452.

Recommendation

It is recommended that the contract be altered to allow the drilling of three holes 300' down dip from holes V-3 through V-6. These holes would be drilled 150' apart and would be called V-8, V-9, and V-10.

The cost of the three holes would be approximately $12,494.00. This cost would include bulldozing, drilling, and assaying.

(Please see Attachment "A" for proposed costs of three new holes, plus X-sections and geology. See Attachment "B" for Review of Drilling to Date.)

Justification

I think these holes should be drilled to further test the downward extensions of the Vipont vein. Good ore was intersected in holes V-3 and V-6. These two intersections show that the replacement ore does extend 680' down dip from the lower most workings in the mine (ie. Phelan Tunnel).

Mr. W. R. Wade's report points out that ore could exist from the bottom of the old workings to the igneous stock which would still be several thousand feet below the proposed drilling.

The nine holes drilled last summer and fall showed two possible ore zones in hole M-3 and G-2. Also holes N-3, K-1, and I-1 showed significant silver mineralization.

The holes are a considerable distance apart, and to intersect ore zones and silver values at these distances shows that there was a large mineralizing force caused by the Tertiary igneous activity.

The values are replacements in limestone, which of course makes them difficult to intersect and interpret.

The experience that Joy (the drilling contractor) has gained to date on the property should enable them to get the utmost in core recovery in these proposed holes.

Thomas F. Miller
Operator

Attachment "A"

January 23, 1968

## X-Sections & Geology

Review of the below listed X-sections will show the diagram and geology of the proposed drilling.

X-section V-V' shows this section revised to show the actual section after drilling.

X-section C-C' shows this section revised to show the actual section after drilling. It also shows proposed Hole V-8.

X-section T-T' is a X-section 300' southwest of X-section V-V' and also parallel to it. Line T-T' runs the same direction as line V-V', which is N 22 W. Holes V-8, V-9, and V-10 would be drilled 150' apart on this line and located as shown on the graph.

X-SECTION D-D' SHOWS SECTION REVISED TO ACTUAL SECTION AFTER DRILLING. IT ALSO SHOWS PROPOSED HOLE V-9.

## Costs

Proposed holes, their depths and costs. Also bulldozer and assaying costs:

| Hole V-8 | | Footages: Non-Core | BX |
|---|---|---|---|
| Surface elevation | 7600 | | |
| Projected elevation | 6770 | | |
| | 830 | 710' | 120' |

| Hole V-9 | | | |
|---|---|---|---|
| Surface elevation | 7550 | | |
| Projected elevation | 6770 | | |
| | 780 | 660' | 120' |

## Hole V-10

| | | | |
|---|---|---|---|
| Surface elevation | 7485 | | |
| Projected elevation | 6770 | | |
| | 715' | 595' | 120' |
| | | 1965' | 360' |

## Cost

| | | |
|---|---|---|
| Non Core | 1965' @ $4.70/ft. = | $9,236.00 |
| BX Core | 360' @ $6.90/ft. = | 2,484.00 |
| | | $11,720.00 |

or approximately $12,000.00

## Bulldozer (D-7)

| | |
|---|---|
| Mobilization | $120.00 |
| Bulldozing drillsites 16 hrs. @ $14 | 224.00 |
| | $344.00 |

| | | |
|---|---|---|
| Assaying | 50 assays @ $3 | 150.00 |
| | | $494.00 |

## Total Cost

| | |
|---|---|
| Drilling | $12,000.00 |
| Bulldozing | 344.00 |
| Assaying | 150.00 |
| | $12,494.00 |

This amendment to the drilling will not exceed the total of $65,390 authorized by the contract.

| | |
|---|---|
| Drilling costs to date are: | $49,531.36 |
| Proposed new holes V-8, V-9, and V-10: | 12,000.00 |
| Bulldozing & Assaying: | 494.00 |
| | $62,025.36 |

Total Cost $62,025.36

Thomas F. Miller, operator Thomas F. Miller

Attachment "B"

January 23, 1968

## Review of Drilling to Date

### Vipont Area

These holes were drilled in the summer and fall of 1966. (ref. X-section V-V')

All six holes were drilled as proposed in the original contract. Hole V-1, V-3, V-4, V-5, & V-6 intersected significant showings of silver. Two holes, V-3 and V-6, had good ore intersections. Hole V-5 was basically lost due to poor core recovery.

### Midway Area

These holes were drilled in the spring and early summer of 1967. (ref. X-section N-N')

All three holes were drilled as proposed in the original contract.

Hole N-3 was the only hole that showed significant amounts of silver mineralization. Although no ore intersections were cut on this hole, I think Hole N-3 could be near ore due to the fact that all the 11.4' of the hole that was assayed showed significant amounts of silver.

### Lexington-Argenta Area

These holes were drilled in the summer and fall of 1967. (ref. X-section F-F')

Of the eleven holes proposed to be drilled in this area, six were drilled and five were deleted.

Hole A-3 intersected significant silver values, but due to the loss of core, I think some good ore zones were lost. Over 30' of core assayed significant silver values.

Hole M-2 did not show anything. Because of this, and because the core recovery was poor in M-3, Hole M-1 was not drilled.

Hole L-1 did not intersect significant silver values.

Hole K-1 did intersect significant values in the Phelan limestone, but did not intersect any silver showings in the Vipont limestone (major ore host rock).

Because of the insignificant showings on holes L-1 and K-1, I decided not to drill Hole J-1.

Hole I-1 intersected significant silver values in the Phelan limestone and the Vipont limestone. No ore zones were intersected.

Holes H1 and H-2 were not drilled because we found out it would be a major expense putting in drill sites. Also these holes would have had to been drilled considerably deeper than proposed to make the appropriate intersections.

Hole G-2 intersected two possible ore zones in the Phelan limestone and also made significant silver mineralization intersections in the Vipont limestone.

The Lexington-Argenta area had a total of five holes deleted. They were: M-1, J-1, H-1, H-2, and G-1.

Thomas F. Miller, operator Thomas F. Miller

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

February 21, 1968

OFFICIAL
COPY
O. M. E.
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Memorandum

To: Director, Geological Survey

From: Assistant Director, Contract and Grant Audit
Audit Operations, Office of Survey and Review

Subject: Review of Contract 2220
Docket No. OME-6452 (Silver)
Thomas F. Miller (Operator)
Vipont Property
Box Elder County, Utah

Pursuant to a request dated September 15, 1967, from the Chief, Office of Minerals Exploration (OME), we have made a cost review of Contract 2220, examining the contract and accounting records and files of OME and the Branch of Budget and Finance, Administrative Division, Geological Survey. Four copies of the report of review are enclosed.

Donald R. Moyer

Enclosures

RECEIVED
U. S. GEOLOGICAL SURVEY
FEB 27 2 47 PM 1968
OFFICE OF THE DIRECTOR

copy to Washington
Jan. 30, 1968

See attached envelope.

OME Region III
RECEIVED
JAN 29 1968
Denver, Colorado

Star Route
Bonner, Montana 59823
January 22, 1968

FILE COPY
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U. S. Dept. of Interior
Geological Survey, OME
Federal Center, Building 53, Room 203
Denver, Colorado 80225

Ref. Contract No. 14-23-090-2220, Docket No. 6452 (Vipont Property)

Dear Mr. Hasler:

Thank you for your letter dated Jan. 3. I am in agreement with you that additional holes should be drilled near V-5 and V-6. I will send my recommendation, along with maps and justification in a few days.

This letter is to request that the project be recessed from December 1, 1967 to approximately May 15, 1968. The project is requested to be recessed because of adverse weather conditions.

Best wishes for a happy and prosperous 1968.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

3/23/68

Awaiting memo from Hasler to recommend or deny request.

Kikkomo

Thomas F. Miller
Star Route
Bonner, Montana 59823
% Paul E. Fife

OME Region III
RECEIVED
JAN 29 1968
Denver, Colorado

Advise your correspondents or publishers of your correct address

AIR MAIL

Moved, left no address
No such number
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William Hasler
U. S. Dept. of Interior, OME
Federal Center, Building 53, Room 203
Denver, Colorado 80225

Geo. Swaney

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Office of Minerals Exploration
Building 53 Room 203

January 3, 1968

Mr. Thomas F. Miller
P. O. Box 267
Oakley, Idaho 83346

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

I received your monthly voucher and progress reports for the month of November on the Vipont mine exploration project, as well as your letter dated December 22, stating your desire to terminate the project at this time.

During my interim inspection on November 10, 1967 you indicated a desire to offset drill holes V-5 and V-6 to further test the down dip extension of the old Vipont ore body. I indicated that I would possibly recommend two or three holes as you showed on the newest proposal you had prepared at that time. You also indicated that you would send your map showing the location of the drill holes which are to offset V-5 and V-6 as they differed from the locations I had suggested. I have been awaiting the receipt of your map along with estimated costs to complete the three offset holes as you proposed, upon which I could base a possible justification for the drilling.

You stated in your narrative report for November 1967 that you think it unwise to ask Joy Manufacturing Company to drill any more at the present contract price, as well as for "other reasons". The Joy Manufacturing Company were firm in their bid, as I recall they were contacted at least twice concerning it.

Joy Manufacturing Company should now be able to obtain good core recovery in the mineralized zones with the experience they have to date. I think that the 3.2 foot zone of mineralized material penetrated in hole V-6 is significant and that this area should definitely be tested, and that considerable thought be given to amending the contract for a winter recess and drilling the three offset holes in the Spring. May I have your thoughts on the "other reasons" before you submit your final report, and we proceed with the termination of this contract.

Sincerely yours,

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
OME-6452

OFFICIAL COPY

OME Region III RECEIVED DEC 27 1967 Denver, Colorado

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Box 267
Oakley, Idaho 83346
December 22, 1967

6452

Bill Hasler
Dept. of the Interior, OME
Denver Federal Center
Denver, Colorado 80225

Dear Bill,

We finished the drilling for the year, November 22. However, the report was delayed because I was waiting for a group of assays.

I would like to end the drilling at this point and make up the final report, which will take about six weeks.

I hope all is well with you and your family. Have a Merry Christmas and a Happy New Year.

Sincerely,

Tom

Thomas F. Miller

Office of Minerals Exploration

Building 53 - Room 203

November 2, 1967

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Mr. Thomas F. Miller
Box 267
Oakley, Idaho 83346

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

My present plans are to be in your vicinity Friday, November 10, 1967 and I would like to make an examination on that date on the above-stated property. If you have other plans, please let me know before Wednesday, November 8, 1967.

Your attention is invited to our change of address. Effective immediately, the correct mailing address is:

Mr. J. William Hasler, Field Officer, Region III
Office of Minerals Exploration - U. S. Geological Survey
Denver Federal Center - Building 53 - Room 203
Denver, Colorado 80225

The telephone number is the same: Area Code 303, 233-3611, extension 8598.

Sincerely yours,

J. William Hasler
mc.

J. William Hasler
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME ✓
Hasler chron
OME chron
OME-6452

Office of Minerals Exploration

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August 16, 1967

Mr. Thomas F. Miller
Box 267
Oakley, Idaho 83346

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

My present plans are to be in your vicinity August 24 - 26, and I would like to make an interim examination on the above-stated property August 25, 1967. If you have other plans, please let me know before Wednesday, August 23, 1967.

Sincerely yours,

MC

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
2220

(2/63)

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AIRMAIL

Memorandum

To: Field Officer, Region III

AUG 7 1967

From: Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

This is in response to your memorandum dated July 24, 1967, requesting our views on a proposal for a geophysical study of the Vipont property on the current contract.

We see no particularly useful results forthcoming from a geophysical study of the property. The consultant, Dr. L. V. Bell, who recommends the study to the Operator, does not state why geophysical techniques would be particularly effective here. He does not indicate whether the study should be directed specifically at expected ore bodies or at other features which may localize ore. In general, the drilling results to date have proved that the estimates of depths to the Vipont limestone in each hole were reasonably accurate. Possible improvement in the estimates by geophysical means does not appear to be warranted, especially now that most of the drilling is completed.

Geophysical probes of certain drill holes no doubt would register anomalous situations, but these would not provide better samples and evaluations of the material penetrated by the holes. Part of the problem appears to be how to physically recover more material in the core samples from the mineralized targets--not to reidentify the targets with another technique.

Interpretation of the results of geophysical surveying would seem to be particularly difficult here because of the thickness (average 445 feet) of the Wardlaw shale formation or mylonitized zone overlying the Vipont limestone. Minor folds and other features that may be guides to ore are small targets to be detected through a dense mass of rock such as the Wardlaw shale. In view of the fact that there have been no previous studies to determine the responses of the formations in the area to various geophysical methods, geophysical studies at this stage of the contract would offer little help to improve the results of the drilling program.

23263

Dr. Bell's recommendation to redrill through the mineralized zone by wedging and drilling from selected drill holes has merit if the areas already drilled warrant further consideration. You have suggested drilling a hole 100 feet northwest of Hole V-6 because of assays of drill core obtained from the latter, and Dr. Bell suggests drilling again from Hole V-5 because of the complete loss of core from 7.2 feet of hole drilled in the mineralized zone. Considering the depth to the zone in the holes (688 and 596 feet, respectively), a strong justification would be required to support a request for additional exploration. Funds for additional drilling from existing holes could be provided by transferring funds allowed for presently planned holes and eliminating these holes from the program. Unless the non-core portions of the holes are cased, there may be some question whether the holes are open and accessible for re-entry.

In summary, we agree with your judgment that the proposed geophysical work would not benefit the current project and, therefore, should not be considered for inclusion in the contract by amendment. The proposal to redrill the Vipont limestone formation from selected drill holes has merit providing a justification can be prepared from the information available.

FRANK E. JOHNSON

Frank E. Johnson

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Mr. Kirkemo

HKirkemo/gla 8-7-67

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

OFFICIAL COPY
O. M. E.
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JUL 25 1967

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| HK | 120 |

July 24, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Last week in a telephone conversation with Mr. Miller, I was informed that Dr. L. V. Bell, a consulting geologist who has made a field examination on the Vipont property, recommended that a geophysical study be conducted in order to more properly pinpoint exploration targets. Mr. Miller indicated that if there was any possibility to amend the contract to include such intems of work that it would be greatly appreciated.

I informed him that there was no provision in the current contract for such work that it would probably be impossible to include such work as part of the contract. However, I also informed him that the work could be done on his own account and perhaps tied in with the current drilling program.

In a letter dated July 11, 1967 a copy of which is enclosed the operator agrees with Mr. Bell's recommendations that the geophysical survey should be conducted on the property. I am enclosing a copy of his letter to you as well as Mr. Bell's report and his recommendations for your consideration. I am n ot certain that the geophysical program would have too drastic a change in the work that is presently being completed under the current contract. It might be advisable for the applicant to complete the geophysical work rapidly and if results were favorable it might have some bearing on the possible relocation of the drilling yet to be completed. However, the work to date has not proven too satisfactory. I would appreciate your opinion on the subject.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

DTD JUL 17 1967

(VIPORT PROJECT) OME

DAF/Regd III
RECEIVED
JUL 17 1967
Denver, Colorado

Dear Mr. Hasler,

Please find enclosed the advance copies of Dr. Bells consulting report to me.

I feel as he does that a geophysical survey if effective should be conducted on the property to pin point targets. He related instances similar to mine where it had worked well in Canada.

I thought perhaps if feasible an elimination of a hole or two under this contract to cover the cost would be guaranteed if it proved feasible to perform such.

I would imagine that there would be some problem in getting a firm date as most good outfits would be filling now.

Mr Bell is going to Montreal the 19th and will let me know of some that Lorne feels are reliable. Sincerely Yours Lorne Hill

July 12, 1967

OME Region III
RECEIVED
JUL 17 1967
Denver, Colorado

Mr. Thomas F. Miller
Box 267
Oakley, Idaho 83346

Subject: (Silver) Vipont Property,
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

Having made a three-day, on the ground investigation of the Vipont project, I should like to submit two recommendations concerning the course of further exploration. Owing to the fact that the principal recommendation, if implemented, should be carried out during the course of the present field season, I have decided to report the matter to you at once in this very summary form. I trust that it will serve to assist in the further exploration of the property.

The drilling done to date has, in my opinion, been well conceived and has given positive results in two holes. A third hole, referred to specifically in a later paragraph, was inconclusive because of loss of core within the ore-bearing horizon. It is felt, however, that the possibilities for establishing better defined targets by means of geophysical methods are sufficiently good to fully warrant conducting such a survey at the earliest possible time. Examination of the ore-bearing, cored sections gives every indication that such material should be capable of detection by geophysical methods. Furthermore, the gentle dip of the ore-bearing horizon should assure that the method should be quite effective to such depth as you may wish to explore.

I would consider that the E/M method conducted as a survey on the ground would be the most effective, but this would be a matter for determination by the geo-physisist engaged, both as to whether such a survey would be actually warranted in the light of its probable effectiveness, and if so, as to which method should be employed. The fact that you have already prepared an excellent base map on a scale of 1 inch = 200 feet should greatly facilitate such a survey, since it could no doubt be used in directly plotting the traverses and results.

If geophysical work in undertaken, I would suggest that at the same time tests be made to determine whether a geophysical probe of certain holes already drilled would be warranted, especially of such intersections regarded as being of ore-bearing character, but in which no significant values were indicated by assay.

It is my opinion that a well-conducted geophysical survey holds the most promise for the "pin-pointing" of further exploratory drilling of the Vipont property. It is recommended that every effort be made to reach a decision as to conducting such a survey at the earliest feasible time.

A further recommendation concerns diamond drilling. In some instances, core was lost within the Vipont ore-bearing horizon which could represent the more crumbly sulphide mineralization which is more difficult to recover in a core. The most significant core loss of this sort was in Hole V-5 from 591.8' to 599.5', a loss of 7.2'. Rather than going to the expense of drilling a check hole from the surface, an effort should be made to obtain a second intersection from the same hole by wedging it, probably at the depth to which it was drilled by the rotary method. Some consideration might also be given to obtaining further ore-zone intersections by wedging certain of the other holes which are considered to be more significant.

Yours truly,

L. V. Bell

L. V. Bell, Consulting Geologist

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration

OFFICIAL COPY
O. M. E.
JUL 22 1967
gle 120 M
FJD 110
HK 120

June 22, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Transmitted herewith are the "Government's Copy" and "Budget and Finance's Copy" of Amendment No. 2 on the above-mentioned contract. The Operator has retained the "Operator's Copy" and the "Field Office Copy" and "Extra Copy for Field Use" has been retained for the Field Office, Region III files.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

Office of Minerals Exploration

June 13, 1967

ORIGINAL COPY
O. M. E.
RECEIVED
JUN 15 1967
MINERALS CODE

Mr. Thomas F. Miller
P. O. Box 267
Oakley, Idaho 83346

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

Enclosed are the original and three copies of proposed Amendment No. 2 (two pages) to the subject contract, signed for the Government.

If the proposed amendment is satisfactory to you, all four copies should be signed, then please retain the Operator's copy, and return the other three to this office.

If any part of the proposed amendment does not have your approval, the original and all copies are to be returned to this office together with the proposed changes for consideration.

The proposed amendment provides funds for an additional 5-1/4 months of supervision by transfer of funds originally intended for drilling and from surplus funds remaining from drilling already completed. Inasmuch as the results of holes yet to be drilled cannot be forecast, specific holes to be deleted from the original drilling were not specified.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures
cc: Chief, OME
Hasler chron
OME chron
2220

MME Form 7
(2/63)

OFFICIAL FILE COPY

| Date | Surname | Code |
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| 5/31/67 | Kirkemo | 120 |
| " | Johnson | 110 |
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| | | |

JUN 5 1967

**AIRMAIL**

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Enclosed are the original and three copies of proposed Amendment No. 2 (two pages) to the subject contract, signed for the Government. An extra copy is enclosed for field use.

If the proposed amendment is satisfactory to you and the Operator, all four copies should be signed by Mr. Miller and distributed in the usual manner.

If any part of the proposed amendment does not have your approval or that of the Operator, the original and all copies are to be returned to this office together with the proposed changes for consideration.

The proposed amendment provides funds for an additional 5½ months of supervision by transfer of funds originally intended for drilling and from surplus funds remaining from drilling already completed. Inasmuch as the results of holes yet to be drilled cannot be forecast, specific holes to be deleted from the original drilling plan were not specified. Perhaps the program will be terminated before a number of holes are drilled if the results of the first few holes into the next target areas are no more promising than the holes completed in the Vipont area.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Mr. Kirkemo
130

HKirkemo/gla 5-31-67

23263

MME FORM 6
REV. 2

REFERENCE SLIP
OFFICE OF MINERALS EXPLORATION

| TO: | DATE | INITIALS |
|---|---|---|
| 1. ~~Associate Solicitor, 5042~~ | | |
| 2. Harold Kirkemo, 4461 | 3192 / 21701 | |
| 3. INTERIOR DEPT. | 6/66/21 | |
| 4. MAY 22 1967 | | |
| 5. SOLICITOR | | |
| FROM: Frank E. Johnson, Chief, OME | 5/19/67 | |

FOR: Check items for action desired

| | | |
|---|---|---|
| x Action | ___ Reply for signature of ___ | ___ Surname |
| x Approval | ___ Investigate | ___ Signature |
| ___ Comment | ___ Recommendations | ___ File |
| ___ Conference | ___ Rewrite | |
| ___ Instructions | Your information | |

REMARKS:

FROM SOLICITOR
MAY 26, 1967
FOR SIGNATURE

RECEIVED
MAY 23 1967
Division of Mineral Resources
General Legal Services

M56300-62

INT.-DUP. SEC., WASH., D.C.

Legal 5/19

HK 120

FJ ~~110~~

120M

DRAFT 5/18/67
HKirkemo/gla

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6452

AMENDMENT NO. 2

It is agreed this _____ day of _____, 1967, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Thomas F. Miller, hereinafter called the "Operator," that Exploration Contract 2220 (OME-6452), dated June 14, 1966, as amended, is further amended effective May 1, 1967, as follows:

In Exhibit A:

1. Under the heading Description of the Work the first paragraph is revised to read as follows:

The work shall consist of bulldozing access roads to about 20 drill sites, leveling the sites, and drilling about 20 holes totalling not more than 12,065 feet.

2. Under the heading Estimated Costs of the Project, Actual Costs, Category (1) Independent Contracts, the third item and the total for the category are revised to read as follows:

Non-core and diamond core drilling,

| | |
|---|---|
| 12,065 feet | $64,790.00 |
| Non-core drilling @ $4.70/ft. 1/ | |
| BX wire line core drilling @ $6.90/ft. 1/ | |
| AX or AXM core drilling @ $6.80/ft. 1/ | |
| Total | $65,390.00 |

1/ Original footnote unchanged.

Category (2) Personal Services is revised to read as follows:

1 Supervisor-geologist-engineer

13½ months @ $750.00/month $9,950.00

1 Outside geological consultant

8 days @ $75.00/day 600.00 $10,550.00

Total

This amendment shall not be construed to increase the estimated total cost of the contract, or the aggregate amount which the Government may be required to contribute, ~~the amount of any category designated~~ as a maximum, ~~nor the fixed unit cost of any item of work~~.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By_____
Chief, Office of Minerals Exploration
U. S. Geological Survey

THOMAS F. MILLER

_____

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration

May 5, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 8 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

A conference was held with Mr. Miller on December 15, 1966 concerning the Vipont project. As a result of the conference, Mr. Miller submitted the letter dated February 4, 1967, concerning the additional time it will possibly take to complete the present project.

The OME contract 2220 (a) allowed 8 months time supervisor-geologist-engineer at the rate of $750.00 a month for a total of $6,000. The operator pointed out that the drilling was taking longer than he had anticipated even though drilling was done on a 2-shift, 6-day week basis for the past 3-1/2 months. The operator indicated that the project would probably take at least 8 months longer to complete based on 2 shifts per day. To date, the operator has used 5-1/4 months of the allotted salary time leaving 2-3/4 months unused. This would leave the operator on his own unless the contract could be amended to allow for more monthly salary time. The operator, in his letter of February 4, proposed that the contract be amended to allow for 5-1/4 months more of salaried time at the present rate of $750.00 a month, for a total of $2,937.50. The request is not a request to increase the amount of the contract, but to request a transfer of funds from another portion of the work.

The operator proposes that Hole No. H-2 not be drilled as specified in reference (a). The drill station has not been prepared for this hole to date, as it is one of the last holes to be drilled, it will take a considerable amount of blasting work and catwork to prepare this site. This will, of course, have to be done at his own expense. He therefore proposes that by deleting the proposed diamond drill hole H-2 which is designated to complete an estimated 470 feet of non-core drilling and

an estimated 200 feet BX core drilling for a total estimated cost of $2,589.00. He also estimates some $400.00 or $500.00 left over from the $1,000 payroll taxes, FICA, insurance, etc.

The operator points out that the diamond drilling in the Vipont area including holes V-1 through V-6 costs some $19,463.00. The estimated costs of holes V-1 through V-6 was $21,149.00. He proposes, therefore, that he has saved some $1,685.51 for having not drilled the total amount of footage designated for the holes V-1 through V-6.

He then proposes that the $1,685.51 and the $3,689.00 which would be the cost saved by deleting diamond drill hole H-2 there would be a total of $5,274.51 less 5-1/4 months proposed salary time at $750.00 per month at $3,937.50. This would be a saving of some $1,353.01. This would leave $1,337.01 for possible overage on the holes to be drilled.

A review of the diamond drilling to date, which includes the completion of hole V-1 through V-6 shows the results to be essentially negative insofar as the discovery of ore-grade material is concerned. Diamond drill holes V-1, V-2, V-3, V-4 and V-5 penetrated the Vipont limestone, which was the target area and yielded assays from a trace in gold and silver to as much as 2 oz. in silver. The only significant mineralization discovered as a result of the drilling in the Vipont area was that found in diamond drill hole V-6 in which 3.2 feet between 688 and 691 feet assayed 16.4 ounces silver, 0.15 percent copper and 2.6 percent lead and 3.6 percent zinc and .8 of a foot between 693.7 and 694.5 assayed .1 ounces gold, 5.0 ounces silver. A 1-foot sample within the B zone assayed 0.06 gold, 52.0 ounces silver, .1 percent copper, 8 percent lead and 0.8 percent zinc.

By plotting the holes on cross section V-V1 the Vipont limestone lies some 30 feet above the original projection as shown in the application. The indications are that possibly an additional hole should be drilled 100 feet further northwest along the line of the V-1 to V-6 holes to check out the mineralized material penetrated in the diamond drill hole V-6. The overall drilling has not been too encouraging and it may well be that all of the holes in the other areas may not need to be completed. It is therefore recommended that the operator's request should be granted and that an amendment should be prepared to include payment for the time requested for the additional 5-1/4 months be allotted in order to enable him to complete the project.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosure: copy of incoming letter dated February 4, 1967

OME Region III
RECEIVED
FEB 9 1967
Denver, Colorado

Box 267
Oakley, Idaho 83346
February 4, 1967

Mr. J. William Hasler
U. S. Geological Survey
Denver Federal Center
Building 25-Room 2284
Denver, Colorado 80225

Re: (a) OME 6452 (Silver) Thomas F. Miller, Vipont Property, Box Elder County, Utah, Contract 2220

(b) Proposal to Office of Minerals Exploration for silver exploration on the Vipont Property--submitted by Thomas F. Miller October 25, 1965

(c) Discussion between Mr. Hasler and myself (Thomas F. Miller) in December concerning the Vipont project

Dear Mr. Hasler:

In reference (b) above I proposed that it would take approximately 8 to 9 months to start and complete the proposed exploration. This estimate was used because of the input I verbally received from Longyear and Joy Manufacturing Company on the amount of time it would take to drill that amount of footage.

The OME Contract 2220 (a) allowed 8 months of time for OME Supervisor-Geologist-Engineer, at the rate of $750 a month for a total of $6000. In my proposal, I said that drilling would be done on a one shift basis. I pointed out in the meeting (ref. c) that the drilling was taking longer than I had anticipated, even though drilling was done on a two shift, six-day-a-week basis for the last 3½ months. Drilling has progressed satisfactorily, in spite of the fact that it is taking longer.

As I pointed out in our meeting, the project would probably take at least 8 months longer to complete and that would be based on drilling two shifts a day.

To date I have used five and a fourth months of the allotted eight months of salary time, leaving two and three fourths unused. This would leave me on my own unless the contract could be amended to allow for more monthly salary time.

If it is possible, I would request that the contract be amended to allow for five and a fourth months more of salary time, at the present contract rate of $750 a month, for a total of $3937.50. This is not a request, or would not be a request to increase the contract amount, but only a request to transfer funds from another portion of the contract.

On the Vipont holes (V-1 thru V-6), there was an underrun of $1685.51 figured as follows:

Contract Amount

| | |
|---|---|
| BX ----- | $ 4,347.00 |
| Non-Core --- | 16,802.00 |
| | $21,149.00 |

Actual Amount

| | |
|---|---|
| BX ----- | $ 5,161.89 |
| Non-Core --- | 14,302.10 |
| | $19,493.99 |

| | |
|---|---|
| $21,149.00 | |
| 19,493.99 | |
| $ 1,685.51 | Underrun, or savings |

I propose that hole H-2 not be drilled, as specified in reference (a). I do not have a drill site made for this hole to date. It is one of the last holes to be drilled, and is going to take a good deal of blasting and cat work to get the drill site made, and at my expense.

Contract amount designated footage for hole H-2 is as follows:

| H-2 | Feet | Cost | Total |
|---|---|---|---|
| Non-Coring | 470 | $4.70/ft | $2209.00 |
| BX Coring | 200 | $6.90/ft | 1380.00 |
| | | | $3589.00 |

Also there would be $400 or $500 left over from the $1000 designated for payroll taxes, F.I.C.A., insurance, etc.

This would make a total as follows:

| | |
|---|---|
| Vipont Hole Underrun | $1,685.51 |
| Deletion of Hole H-2 | 3,589.00 |
| | $5,274.51 |
| Less 5¼ months of proposed salary time at $750/month | 3,937.50 |
| | $1,337.01* |

This would leave * $1,337.01 for a possible overrun on the holes to be drilled.

I would appreciate hearing from you as soon as possible on this matter. I intend to start up the last of April or first part of May, depending on the weather, and finishing the last of December.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

Office of Minerals Exploration

April 26, 1967

Mr. Thomas F. Miller
P. O. Box 267
Oakley, Idaho 83346

Subject: OME-6452 (Silver)
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

This letter is in reply to your letter dated April 19, 1967 requesting permission to start the project on the above-mentioned docket on April 27, 1967 after a recess for the winter months. You hereby have permission to commence the contract work as of today since Amendment No. 1 executed the 16th day of January, 1967 between the U. S. Geological Survey and you, the Operator, provided the following: "1.(a) Drilling under the contract may be suspended during the period beginning December 22, 1966 and ending not later than June 22, 1967." Since the final date of suspension is June 22, 1967 you may begin drilling any time before that date, or as soon as the weather permits, and as you state in your letter you beginning date is April 24, 1967.

I shall try to get to your area for an interim inspection sometime in May.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, w. copy of incoming letter
Hasler chron
OME chron
2220

OME Region III
RECEIVED
APR 24 1967

Box 267
Oldtown, Idaho 83846

April 19, 1967

J. William Hasler
U. S. Geological Survey
Denver Federal Center
Building 25---Room 2284
Denver, Colorado 80225

Ref. Contract No. 14-23-090-2220, Docket No. 6452 (Vipont Mine)

Dear Mr. Hasler:

This letter is to request that the work on the referenced project be started up April 24, 1967. I have called Joy Manufacturing Company and they are ready to go.

Enough snow has melted off to allow drilling.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller
Project operator

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

OFFICIAL COPY
O. M. E.
RECEIVED
FEB 16 1967
MINERALS CORE

February 13, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Enclosed please find the Government's copy and Budget and Finance's copy of Amendment No. 1 (1 page) on the above-stated subject. The Operator's copy was retained by the operator; and the Field Office copy and the Extra Copy for field use have been retained by the Field Officer, Region III.

J. William Hasler
J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

Denver Federal Center - Building 25- Room 2284
Denver, Colorado 80225

February 9, 1967

ORIGINAL COPY
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HOW
JRS HO
Wlerc 120 K

Mr. Thomas F. Miller
Box 267
Oakley, Idaho 83346

Subject: OME-6432 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

We received two letters from you by certified mail this afternoon.

Certified No. 617543, dated February 4 in the inside address and mailed February 7 (PM) from Bonner, Mt. contained amendment No. 1 on the above-mentioned property. This amendment will be forwarded to Washington tomorrow.

Certified No. 61742 contained your proposal for amendment No. 2. Mr. Hasler is in meetings today and tomorrow (Friday, Feb. 10, 1967) but will give your letter, in turn, his attention and you should hear from him or the Washington office in the near future.

Sincerely yours,

Mary E Clark for
J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME ✓
Hasler chron
OME chron
2220

Mr. Kirkens

OME Region III
RECEIVED
FEB 9 1967
Denver, Colorado

Box 267
Oakley, Idaho 83346
February 4, 1967

Mr. J. William Hasler
U.S. Geological Survey
Denver Federal Center
Building 25- Room 2284
Denver, Colorado 80225

Re: Amendment No. 1 to OME - 6452 (Silver)
Thomas F. Miller, Vipont Property, Box Elder County, Utah
Contract 2220

Dear Mr. Hasler:

Please find enclosed the three (3) signed copies to Amendment No. 1 of referenced contract.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

Denver Federal Center-Building 25 - Room 2284
Denver, Colorado 80225

OFFICIAL COPY

January 27, 1967

Mr. Thomas F. Miller
Box 257
Oakley, Idaho 83346

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

Enclosed are the original and three copies of Amenment No. 1 (1 page) to the subject contract signed for the Government. If this amendment is satisfactory to you as the operator, all four copies should be signed by you. Please retain the operator's copy and return the other three copies (Government's copy, Budget and Finance copy, and Field Office's copy) to this office.

If any part of the proposed amendment does not have your approval the original and all copies are to be returned to this office together with the proposed changes for consideration.

The amendment allows a recess of 6 months duration but work can be resumed at any time during that period.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures
Chief, OME
cc: Hasler chron
OME chron
2220

MME Form 7
(2/63)

OFFICIAL FILE COPY

| Date | Surname | Code |
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| 1/7/67 | Kirkemo | 120 |
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**AIRMAIL**

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Enclosed are the original and three copies of proposed Amendment No. 1 (one page) to the subject contract, signed for the Government. An extra copy is enclosed for field use.

If the proposed amendment is satisfactory to you and the Operator, all four copies should be signed by Mr. Miller and distributed in the usual manner.

If any part of the proposed amendment does not have your approval or that of the Operator, the original and all copies are to be returned to this office together with the proposed changes for consideration.

The amendment allows a recess of six months' duration, but work can be resumed at any time during that period.

The results, to date, of drilling on this project have not been encouraging. During the period of recess, we suggest that you carefully review these results with the idea of determining whether drilling should be resumed or the contract terminated. If the core and assays obtained from drilling into the three target formations have not indicated sufficient reason to warrant continuing the project, it would be to the advantage of both the Government and the Operator to terminate the contract.

FRANK E JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Mr. Kirkemo
130

HKirkemo/gla 1-6-67

23263

Bill - This is the docket ~~Roscoe~~ Kirk ~~Smith~~ (1-10-67 Tolson) said to withhold $200 on.

Denver Federal Center-Building 25 - Room 2284
Denver, Colorado 80225

January 12, 1967

Mr. Thomas F. Miller
Box 267
Oakley, Idaho 83346

Subject: Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

We have received in this morning's mail the MME Form 60 (Operator's Monthly Voucher), MME Form 61 (Operator's Progress Report) and Narrative Report for the month of December, 1966.

As soon as they have been gone over, we will submit them promptly to our Washington office for processing.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
2220

MME FORM

REV. 2-59

REFERENCE SLIP

OFFICE OF MINERALS EXPLORATION

| TO: | DATE | INITIALS |
|---|---|---|
| 1. ~~Assoc. Sol.-MR, Rm. 6554~~ ~~Through Room 6042~~ | | |
| 2. Mr. Kirkemo, Rm. 4459 | | |
| 3. | | |
| 4. | | |
| 5. | | |
| FROM: Chief, OME | | |

FOR: Check items for action desired

____ Action ____ Reply for signature of ____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS:

~~3126~~

E-66-2170.11

3192 FROM SOLICITOR INTERIOR DEPT.

JAN 10 1967 JAN 9 1967

FOR SIGNATURE SOLICITOR

INT.-DUP. SEC., WASH., D.C.

M56300-62

cc: Chief, OME
Header office
OME office
2220

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DRAFT 1/6/67
HKirkemo/gla

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6452

AMENDMENT NO. 1

It is agreed this _____ day of January, 1967, between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and Thomas F. Miller, hereinafter called the "Operator," that Exploration Contract 2220 (OME-6452), dated June 14, 1966, is amended effective December 22, 1966, as follows:

1. (a) Drilling under the contract may be suspended during the period beginning December 22, 1966, and ending not later than June 22, 1967.

(b) The Government shall not contribute to any costs of rehabilitation or repair which in its opinion would not have occurred had there been no suspension of the work.

(c) The Operator, at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work.

2. The time fixed by Article 1 of the contract for completion of the work is extended from eighteen (18) to twenty-four (24) months from the date of the contract.

This amendment shall not be construed to increase the estimated total cost of the contract, the aggregate amount which the Government may be required to contribute, the amount of any category designated as a maximum, nor the fixed unit cost of any item of work.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By_____
Chief, Office of Minerals Exploration
U. S. Geological Survey

THOMAS F. MILLER

_____

Box 267
Oakley, Idaho 83346
December 21, 1966

J. William Hasler
U.S. Geological Survey
Denver Federal Center
Building 25---Room 2284
Denver, Colorado 80225

Ref.: Contract No. 14-23-090-2220, Docket No. 6452,
(Vipont Property)

Dear Mr. Hasler:

This letter is to request that the project be recessed from December 22, 1966 to approximately May 1, 1967.

The project is requested to be recessed because of adverse weather conditions.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller
Project operator

Office of Minerals Exploration

December 9, 1966

Mr. Thomas F. Miller
P. O. Box 207
Oakley, Idaho

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

The receipt for the letter I mailed you on December 2, 1966 has been returned indicating that you have received the letter, although I have not yet received your reply.

There is considerable chance that my plans may be altered, and that I cannot meet the December 13th date; however, I will inform Mr. Lowell Hilpert, U. S. Geological Survey, 8426 Federal Building, 125 South State, Salt Lake City, Utah 84111, and you may contact him. Mr. Hilpert's office phone number is 524-5640.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Chief, OME
cc: Mr. L. S. Hilpert
Hasler chron
OME chron
2220

OFFICIAL COPY

Office of Minerals Exploration

December 2, 1966

Mr. Thomas F. Miller
P. O. Box 207
Oakley, Idaho 83346

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

I plan to be in Provo and Salt Lake City, Utah during the week of December 12-16. I should like to make an inspection of the Vipont property on Thursday, December 15, provided the area has not been snowed in and you are still able to drill.

My present plans are to leave Denver the weekend of December 10. Would you kindly inform me before that time as to whether or not an examination on the 15th is feasible? If it is, I will plan to meet you on the property around noon on the 15th.

I am not certain whether I will be staying in Provo or in Salt Lake City, however, I will leave word with Lowell Kilpert of the U. S. Geological Survey in Salt Lake City as to my whereabouts.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME ✓
OME chron
Haslerchron
2220

OFFICIAL FILE COPY

| Date | Surname | Code |
|---|---|---|
| 11/28 | Kirkemo | 120 |
| | | 110 |
| | | 220 |
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| | | |
| | | |

NOV 28 1966

AIRMAIL

Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

This will acknowledge receipt of your personal check No. 217, dated November 14, 1966, in the amount of $4.34 which you submit as payment for an overcharge for F.I.C.A. on your voucher for September 1966, according to your letter to Mr. J. W. Hasler dated November 14, 1966.

We are returning your check herewith because it is simpler for accounting purposes to deduct the amount ($4.34) from the monthly total claimed on your voucher for October 1966. The corrected amount for your October total is $3,777.25 ($3,781.59 less $4.34).

Thank you for noting the overcharge.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure: Check #217

cc: Director's Reading File
Division File
Economic Geology File
Branch of Budget & Finance (with Opr.'s October 1966 voucher)
OME File
OME Region III
OME Reading File
Mr. Kirkemo

HKirkemo/gla 11-28-66

23263

Office of Minerals Exploration

November 2, 1966

Mr. Thomas F. Miller
P. O. Box 207
Oakley, Idaho 83346

Subject: OME-6452 (Silver)
Vipont Mine
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

May I call your attention to the omission from your Operator's vouchers of supporting data covering supervision, accounting and office expenses, and insurance. Even though I have inspected the project and can attest to the fact that the claims for these services are approved expenses, an itemized listing of these costs to date must accompany your next voucher, as well as with all subsequent vouchers. These costs must be adequately supported and documented as instructed under "Preparation of Operator's Monthly Voucher, MME Form 60" which reads as follows: "After all applicable spaces are filled in, the Operator or his agent must sign the certification in the lower left corner. Categories (2) through (7) apply to "Actual Cost" contracts only.

Under "Fixed Unit Costs" and Category (1) report, (a) the total fixed unit costs of work performed under contract provisions for contribution by the Government on a basis of "fixed unit costs"; and (b) the claimed costs of work performed on a unit-price basis by independent contractors.

Under Category (2) include the claimed costs of all payrolled and invoiced supervisory, technical, and labor personnel, except the costs for services applicable to Categories (5) and (6).

Under Category (3) include the claimed costs of all project materials and supplies other than those used for work under Categories (5) and (6).

Under Category (4) report claimed rentals on equipment belonging to a third party, claimed payments or obligations for payments on the Operator's purchase of equipment, and claimed depreciation for the use of Operator-owned equipment.

Under Category (4) report claimed rentals on equipment belonging to a third party, claimed payments or obligations for payments on the Operator's purchase of equipment, and claimed depreciation for the use of Operator-owned equipment.

Under Categories (5) and (6) include all claimed costs of labor, supervision, technical services, operating materials and supplies, and all other items used in (5) the initial rehabilitation and repairs of existing buildings, fixtures, installations (exclusive of mine workings), and operating equipment; and (6) the installation or construction of new buildings, fixtures, and fixed improvements (exclusive of mine workings). Do not report these costs under Categories (2), (3), (4), and (7).

Under Category (7) include all miscellaneous claimed costs such as repairs (other than initial) and maintenance of equipment, sampling and analyses, travel, communication, accounting, office expenses, and the Operator's share of payroll taxes and insurance.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies of transcripts of payrolls which lists each employee, wage rate, period of employment, gross earnings, itemized deductions, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as depreciation of Operator-owned equipment, unemployment taxes, and employee's liability insurance. The certification may be stated thus, "Certified True Copy (or Transcript)", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Executive Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher."

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
Contract 2220

MME Form 7
(2/63)

OFFICIAL FILE COPY

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OCT 26 1966

Memorandum

To: Chief, Branch of Budget and Finance

From: Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

The Operator's note on MME Form 61 for the month of September 1966 is in error. The allowed cost for bulldozing is $500.00. The total of the July, August, and September 1966 invoices for bulldozing is $521.00, which exceeds the contract allowed cost by $21.00, not $18.50 as noted by the Operator. The total of $500.00 claimed for bulldozing on MME Forms 60 and 61 is allowable.

Use of a D-8 bulldozer, noted on Forms 60 and 61, although not specified in the contract, is approved. The cost of the D-8 equipment was at the rate of $14.00/hour, whereas the approved cost for the smaller D-7 bulldozer is $15.00/hour. A better job was done with the larger bulldozer and at less cost to the Government.

The claim for $98.00 for mobilization of the D-8 bulldozer is supported by an invoice from Blaine Soil Conservation District under the item Transport Hours, 7 @ $14.00/hour. Since the bulldozing was completed and presumably the bulldozer was removed from the property, the mobilization item shown on Forms 60 and 61 includes demobilization. The $98.00 claim is approved.

By a copy of this memorandum we are calling the Field Officer's attention to the omission from the Operator's vouchers of supporting data covering supervision, accounting and office expenses, and insurance. The Field Officer has inspected the project and can attest to the fact that the claims for these services are approved expenses. An itemized listing of these costs to-date will be requested from the Operator by the Field Officer, and subsequent vouchers will be supported by a listing of these costs.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Region III

OME Reading File
Mr. Kirkemo

HKirkemo/gla 10-26-66

23263

Office of Minerals Exploration
Building 25- Room 2284

September 16, 1966

OFFICIAL COPY
O. M. E.
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SEP 19 1966

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Mr. Thomas F. Miller
P. O. Box 207
Oakley, Idaho 83346

Re: OME-6452(Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

Enclosed is a 12-months supply of monthly report forms: MME Form 60 "Operator's Monthly Voucher" and MME Form 61 "Operator's Progress Report".

Article 5b of the subject contract states: "The Operator shall provide the Government with four copies of monthly reports in three sections as follows:

(1) Operator's Monthly Voucher claiming costs for work performed;

(2) Operator's Progress Report showing the number of units of the various types of work performed; and

(3) a narrative report of the work performed during the reporting period, including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government; however, the original of the Operator's Monthly Voucher shall be supported by documentary evidence, such as certified copies or transcripts of payrolls and invoices, for all costs claimed under Article 6(a) (1).)

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
Hasler chron
OME chron
2220

Office of Minerals Exploration--Building 25

September 7, 1966

OFFICIAL COPY

Mr. Thomas F. Miller
P. O. Box 267
Oakley, Idaho 83346

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Mine
Box Elder County, Utah
Contract 2220

Dear Mr. Miller:

It has been necessary to alter my plans concerning my visit to your property. My present plans are to arrive in Salt Lake City, Utah, Monday evening September 12, 1966. I shall leave Salt Lake City, Utah, the morning of September 13th and meet you at the Strevell Cafe at about 11:30 a.m. Unless I have a change of plans and so inform you, please consider this a firm date.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief OME
OME chron
Hasler chron
OME-6452

6452

U. S. Geological Survey -- Denver Federal Center
Building 25- Room 2284
Denver, Colorado 80225

OFFICIAL
COPY
O. M. E.
RECEIVED
AUG 22 1966
INITIALS CODE
120 MC
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120 K

Registered Airmail
Return receipt requested

August 10, 1966

Mr. Thomas F. Miller
P. O. Box 267
Oakley, Idaho

Dear Mr. Miller:

Transmitted herewith are your Operator's Monthly voucher (MME Form 60) Operator's progress report (MME Form 61) and Operator's monthly narrative report for the month of July, 1966.

It will be necessary to fill in five copies of the Form MME 60 I furnished you with as my signature is required on the back of each form.

On the MME form 61, you should show the number of hours operated under "Units to date", not the costs.

I plan to be in Salt Lake City Sept. 11-14, 1966 and should like to inspect the exploration project some time during that week.

Sincerely yours,

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief, OME
OME chron
Hasler chron
OME-6452

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
U. S. Geological Survey - Denver Federal Center
Building 25 - Room 2284
Denver, Colorado 80225

June 24, 1966

OFFICIAL COPY
O. M. E.
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JUN 27 1966

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Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Contract 2220

Transmitted herewith are the Government's copy, and the Budget and Finance's copy of the subject contract, which has now been signed by both parties, the Government and the Operator. The Operator placed the date of June 22, 1966 as the starting date. I have retained the Field Office copy and instructed the Operator to retain the Operator's copy.

Enclosures

J. William Hasler

MME Form 7
(2/63)

OFFICIAL FILE COPY

| Date | Surname | Code |
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| 6/7/66 | Kirkham | |
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AIRMAIL

E-66-2170.11

SOLICITOR

JUN 13 1966

INTERIOR DEPT

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

Enclosed are the original and three copies of a proposed contract for the subject property. The contract consists of MME Form 50, (7 pages), Annex I (2 pages), 1 Lien and Subordination Agreements, Exhibit A (6 pages), Exhibit B (1 page), and two maps (Figures 1 and 2). All copies of the contract have been signed for the Government. You should insert the date for commencement of the work. Also enclosed is an extra unsigned copy of the contract for field use.

If the proposed contract is satisfactory to you and the Applicant, all four copies should be signed by the Applicant. Thereafter, please distribute the copies in the usual manner.

Please advise the Applicant that the 6-3/4 percent interest accrues from the dates on which individual payments are made by the Government and like the principal is repayable from royalty on production.

If any part of the proposed contract does not have your approval or that of the Applicant, the original and all copies should be returned to this office together with the proposed changes for consideration.

FRANK E. JOHNSON

Frank E. Johnson

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
Docket
OME Reading File
130

FROM SOLICITOR
JUN 1 3 1966
FOR SIGNATURE

FROM SOLICITOR
JUN 1 3 1966
FOR SIGNATURE

MMerrithew/mm (6/7/66)

23263

DRAFT HKirkemo/m
5/26/66

Docket
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RMA.
FJ

MME Form 50
July 1965

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

EXPLORATION CONTRACT
(Long Form)

| Docket No. | Commodity | Contract No. | County | State |
|---|---|---|---|---|
| OME-6452 | Silver | | Box Elder | Utah |

It is agreed _____ (Date), between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and

Thomas F. Miller, an individual

whose mailing address is 2112 Westminster Avenue, Salt Lake City, Utah 84108, hereinafter called the "Operator," as follows:

ARTICLE 1. Authority and scope.--(a) This contract entered into under the authority of Public Law 701, 85th Cong., 2d sess. (72 Stat. 700; 30 U.S.C. § 641 - 646), consists of this form, the attached Annex I (land description), Exhibit A (work and costs), and the maps and documents listed. The work is a search for new or unexplored deposits of the commodity designated above. The Operator shall begin the work on or before _____ (Date), and, subject to the provisions of Article 9 and Exhibit A, shall either have completed the work within 18 months from the date of the contract or shall have incurred allowable costs (see Article 6) in a sum not less than the total cost set forth in Exhibit A.

(b) The total allowable cost of the work set forth in Exhibit A is $ 78,800.00. The Government will contribute ~~50~~ 75 percent of the allowable costs as they are incurred, in a total sum not in excess of $ 59,100.00 in accordance with the provisions of Articles 3, 4, 5, and 6. "Costs incurred" means costs that have been paid or have become due and payable, or that the Government determines have become obligations.

(c) Interest computation.--Simple interest at the rate of ____ percent shall accrue from the dates Federal funds are made available until the period specified for payment of royalty expires, or until the amount of Federal funds contributed is fully repaid with interest.

(d) The Operator shall not transfer or assign this contract or any right or obligation thereunder without the written consent of the Government.

ARTICLE 2. Operator's right in land.--(a) The Operator represents and undertakes that Annex I correctly describes the land which is the subject of this contract and the nature of the Operator's right of property and possession therein (whether as owner, lessee, or otherwise), and that such right, title, or interest is subject only to the following claims, liens, or encumbrances:

See Annex I

(b) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above and (if the Operator does not hold the legal title) the lien agreement of any holder of the legal title of the land (lessor, seller, optionor, etc.) are attached as follows:

See Annex I

(c) The Operator shall preserve and maintain his right, title, or interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. The Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a royalty on production and liens for the payment thereof. Two true copies of such instrument shall be furnished to the Government. If the Government's rights to royalty as provided in Article 7 have been terminated, the provisions of this paragraph (c) shall become inapplicable.

ARTICLE 3. Performance of the work.--(a) Operator's responsibility.--The work shall be performed diligently, efficiently, in a workmanlike manner in accordance with good mining standards, and in compliance with State laws governing health, safety, and liability insurance covering employment. The Operator shall provide suitable and adequate equipment, facilities, materials, supplies, and labor to complete the work as specified in Article 1(a).

(b) Independent contracts.--To the extent that the allowable costs are estimated in Exhibit A with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed (see Article 6(a), Category (1)). Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract, the Government will participate in payments to the independent contractor only as to work performed in accordance with the provisions of this exploration contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) Government may inspect.--The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract and production operations during the period that royalty is payable to the Government. The Operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 4. Contribution by the Government.-- The Government will make its contribution on the basis of the monthly vouchers referred to in Article 5(b), but all payments by the Government are provisional only, subject to audit. Until the account between the Operator and the Government is finally audited and settled and the Operator's final report has been received, the Government may withhold such sums as are necessary to protect its interests. The Government may make payments for the account of the Operator directly to independent contractors and suppliers rather than to the Operator.

ARTICLE 5. Reports, accounts, audits.--(a) Operator's records.--The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine all pertinent books, documents, papers, and records of the Operator. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) Monthly reports.--The Operator shall provide the Government with four copies of monthly reports in three sections as follows:

(1) Operator's Monthly Voucher claiming costs for work performed;

(2) Operator's Progress Report showing the number of units of the various types of work performed; and

(3) a narrative report of the work performed during the reporting period, including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground.

(Forms for reporting under (1) and (2) above will be provided by the Government; however, the original of the Operator's Monthly Voucher shall be supported by documentary evidence, such as certified copies or transcripts of payrolls and invoices, for all costs claimed under Article 6 (a) (1).)

(c) Final report.--Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with three copies of a final report (in addition to the final monthly report). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the related costs.

(d) Report of sales.--The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's royalty relates, such as two copies of smelter or concentrator settlement sheets and certified accounts of production and sale or other disposition of production.

(e) Compliance with requirements.--If the Government determines that any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the preparation or completion of the same with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 6. Costs.--(a) Allowable costs.--The allowable costs of the work to which the Government will contribute are limited to:

(1) the necessary, reasonable, and direct actual costs that are estimated in Exhibit A by categories as specified in this article; and

(2) fixed costs for units of work to be performed (per foot, per hour, etc.) agreed upon in lieu of actual costs and set forth in Exhibit A.

The Government will not contribute to costs under any category or subcategory omitted from the estimate of costs in Exhibit A. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost; any excess over a fixed unit cost; and any excess over the total allowable cost of the work are not allowable. The Operator shall incur such excesses for his own account without contribution by the Government, but the Operator is not obligated to incur more than his agreed percentage of the total allowable cost of the work.

Any category or subcategory or element thereof not designated as a maximum in this article, or in Exhibit A may be exceeded, provided that the total allowable cost of the work, which is a maximum, is not exceeded.

CATEGORY (1)--INDEPENDENT CONTRACTS.--(See Article 3(b)). The total of this category and the average unit cost estimated for each type of work to be performed under an independent contract are maximums.

CATEGORY (2)--PERSONAL SERVICES.

Subcategory (a)--Supervision and Technical Services--All elements of this subcategory (number of supervisors, technicians, outside consultants, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)--Labor.

CATEGORY (3)--OPERATING MATERIALS AND SUPPLIES.--Includes such items as drill bits and steel, explosives, fuel, pipe, power, timber, rail, and small tools costing less than $50 each.

CATEGORY (4)--OPERATING EQUIPMENT.

Subcategory (a)--Rental.--The number of each rented item [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)--Purchases.--The total of this subcategory is a maximum.

Subcategory (c)--Depreciation.--All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)--INITIAL REHABILITATION AND REPAIRS.--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

Subcategory (a)--Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).--The total of this subcategory is a maximum.

Subcategory (b)--Initial rehabilitation and repairs of operating equipment.--The total of this subcategory is a maximum.

CATEGORY (6)--NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

CATEGORY (7)--MISCELLANEOUS.--Includes requirements and costs that do not fall within any of the first six categories, such as repairs other than initial and maintenance of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, and communications.

(b) Nonallowable costs.--In addition to the limitations imposed by paragraph (a) of this Article 6 the Government will not contribute to the following costs:

(1) Costs of the land, such as rental, depreciation, depletion, or other costs of acquiring, owning, or holding possession;

(2) Indirect costs, such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) Previous work performed or costs incurred before the date of this contract; and

(4) Deferred payments.--Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods, unless the purchase agreement is approved by the Government in writing.

(c) Reductions in costs.--The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original total cost. The provision does not apply to receipts from production which are subject to the Government's royalty under the provisions of Article 7.

ARTICLE 7. Repayment by Operator.--(a) Certification.--If the Government considers that mineral or metal production from the land covered by the contract may be possible as a result of the exploration work, it shall so certify in writing to the Operator at any time not later than six months after a sufficient final report and final accounting (see Article 5) have been furnished.

(b) Royalty on production.--The Operator, whether or not the producer (for example, if the Operator either transfers or does not retains his interest in the land), shall pay to the Government a royalty on all minerals and metals mined or produced from the land as follows:

(1) irrespective of any certification of possible production--from the date of the contract until the lapse of the time within which the government may issue such certification or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first; or

(2) if the Government issues a certification of possible production--for a period of ten years from the date of the contract, or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first.

(c) Payment of royalty.--(1) The Government's royalty shall be five percent of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrate, metal or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business and shown as deductions on the buyer's settlement sheets (such as treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight payable by the buyer to a carrier (not the Operator or producer)), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. No costs of the Operator or Producer are deductible in arriving at the "gross proceeds" as that term is here used.

The term "treatment processes" means those processes (such as milling, concentrating, smelting, refining, or equivalent, but excluding fabricating or manufacturing) applied to the crude ore or other production after it is extracted from the ground to put it into a commercially marketable form.

(2) The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be.

(d) Unsold production.--If any production (ore, concentrate, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrate, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination or the market value, whichever is greater.

(e) Lien for payment.--To secure the payment of royalty (see Article 7(b)), the Operator hereby grants to the Government a lien upon his interest in the land and upon any production of minerals and metals therefrom until the royalty claim is extinguished by lapse of time or is fully paid.

(f) Notice to purchasers.--The Operator or producer shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Government, and this estimate shall be final and binding upon the Operator or producer.

(g) No obligation to produce.--Nothing in this contract shall be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(h) Government not obligated to buy.--Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals and metals mined or produced from the land.

ARTICLE 8. Interests in purchased property.--(a) Title and ownership.--All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions although title thereto shall be taken in the name of the Operator.

(b) Preservation of property.--Until the final disposal of any property in which the Government has an interest, the Operator shall preserve and protect same for the best interest of the Government, and any reasonable and necessary cost thereof will be treated as an allowable cost of the exploration. After the completion of the work, termination of the Government's obligation to contribute, or when such property is not being used for the work, the Operator shall not use it elsewhere without the written consent of the Government and without paying a reasonable rental to be fixed by the Government for its proportionate interest.

(c) Disposal of property.--Upon the completion of the work, termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, sale to others, purchase by the Operator, or sale or transfer to the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government, the Operator shall not sell at any price any item of property that cost more than $500, and shall not sell at less than 25 percent of the purchase price any item of property that cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or offers. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, explosives, pipe, or rail), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item, the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the exploration.

(d) Default of the Operator re disposal.--If within 90 days after the completion of the work, termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may:

(1) in writing extend the time within which the Operator must dispose of or liquidate the property;

(2) by written notice to the Operator, place upon such property what it determines to be a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; and

(3) enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 9. Termination of the Government's obligations.--(a) If the Government determines that operations at any time have failed to achieve anticipated results and further work is not justified, the Government may give the Operator written notice thereof, and thereupon:

(1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to final accounting and reporting; and

(2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to final accounting and reporting.

(b) If the Government determines that the Operator is in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon:

(1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to final accounting and reporting; and

(2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to final accounting and reporting.

The Government may also avail itself of any other remedy the law may provide for breach of contract, including the right to rescind the contract and to demand repayment of all moneys contributed by the Government under the contract.

(c) The giving of any notice by the Government under the provisions of this Article 9 shall not affect the Government's rights as provided for in the contract with respect to royalty and liens to secure the payment thereof, and such rights shall be fully preserved.

(d) The determinations of the Government are subject to appeal under Article 13.

ARTICLE 10. Notices to be given by the Government may be delivered to the Operator, or may be sent by certified mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 11. Officials not to benefit.--No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 12. Nondiscrimination in Employment. The provisions respecting nondiscrimination in employment which are required by section 301 of Executive Order 10925, dated March 6, 1961 as amended and supplemented are attached hereto as Exhibit B and are hereby incorporated in and made a part of this contract.

ARTICLE 13. Disputes.--Any dispute arising under this contract which is not disposed of by agreement shall be decided by the Director, U. S. Geological Survey, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Operator. The decision of the Director, U. S. Geological Survey, shall be final and conclusive unless, within 30 days from the date of receipt of such copy, the Operator mails or otherwise furnishes to the Director, U. S. Geological Survey, a written appeal addressed to the Secretary of the Interior. The decision of the Secretary or his duly authorized representative for the determination of such appeals shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence.

The term "Director, U. S. Geological Survey," as used herein includes his duly authorized representative.

ARTICLE 14. Work Hours Act of 1962 - Overtime Compensation.--This contract, to the extent that it is of a character specified in the Work Hours Act of 1962 (Public Law 87-581, 76 Stat. 357-360) and is not covered by the Walsh-Healey Public Contracts Act (41 U.S.C. 35-45), is subject to the following provisions and to all other provisions and exceptions of said Work Hours Act of 1962.

(a) Overtime requirements.--No Operator or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic to be employed on such work in excess of eight hours in any calendar day or in excess of forty hours in any workweek unless such laborer or mechanic receives compensation at a rate of not less than one and one-half times his basic rate of pay for all hours worked in excess of eight hours in any such calendar day or in excess of forty hours in any such workweek, as the case may be.

(b) Violations; liability for unpaid wages; liquidated damages.--In the event of any violation of the clause set forth in subparagraph (a) of this paragraph, the Operator and any subcontractor responsible therefor shall be liable to any affected employee for his unpaid wages. In addition, such Operator and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for

liquidated damages. Such liquidated damages shall be computed, with respect to each individual laborer or mechanic employed in violation of the clause set forth in subparagraph (a) of this paragraph, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of eight hours or in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (a) of this paragraph.

(c) Withholding for unpaid wages and liquidated damages.--The U. S. Geological Survey may withhold or cause to be withheld, from any moneys payable on account of work performed by the Operator or subcontractor, such sums as may administratively be determined to be necessary to satisfy any liabilities of such Operator or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (b) of this paragraph.

ARTICLE 15. Copeland (Anti-Kickback) Act--Nonrebate of wages.--The regulations of the Secretary of Labor applicable to contractors and subcontractors (29 CFR, Part 3), made pursuant to the Copeland Act, as amended (40 U. S. C. 276c) and to aid in the enforcement of the Anti-Kickback Act (18 U. S. C. 874) are made a part of this contract by reference. The Operator will comply with these regulations and any amendments or modifications thereof and will be responsible for the submission of affidavits required of independent contractors thereunder. The foregoing shall apply except as the Secretary of Labor may specifically provide for reasonable limitations, variations, tolerances, and exemptions.

ARTICLE 16. Changes and added provision.--

_____

_____

_____

_____

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

THOMAS F. MILLER
(Operator)

By_____

By_____
Director, U. S. Geological Survey

Title_____

_____

I, _____, certify that I am the
(Name)

_____ secretary of the corporation named as Operator herein; that

_____, who signed this contract on behalf of the Operator, was then
(Name)

_____ of said corporation; that said contract was duly signed for
(Title)

and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

_____

 [ CORPORATE SEAL ]

RMA.

DRAFT HKirkemo/mm
4/21/66

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6452

ANNEX I

The land, including all rights pertaining thereto, referred to in Article 2 of the contract consists of fifty-three (53) patented lode mining claims in section 31, T. 15 N., R. 17 W.; sections 6 and 7, T. 14 N., R. 17 W.; section 36, T. 15 N., R. 18 W., and sections 1 and 12, T. 14 N., R. 18 W., Salt Lake Meridian, Ashbrook mining district, Box Elder County, Utah.

These claims are shown on Figure 1, entitled "Claim Map of Vipont Property, Ashbrook Mining District, Box Elder County, Utah" which is attached hereto and made a part hereof.

The claims included in the group are as follows:

| Claim | Patent No. |
|---|---|
| Catherine Nos. 1-6 | 42134 |
| Contact Mine Nos. 1-3 | " |
| Dugway Nos. 1-6, 8-20 | " |
| Fraction | " |
| Northern Nos. 1-5 | " |
| Park Nos. 1-4 | " |
| Poorman | " |
| Sentinel Mine/No. 2 | " |
| Southern Nos. 1-3 | " |
| West End | " |

| Claim | Patent No. |
| --- | --- |
| Argenta | 24640 |
| Black | 24639 |
| Champion | 24642 |
| Clipper | 24577 |
| Homestake | 24576 |
| Homestake Mill Site | " |
| Lexington | 24643 |
| Mahogany | 24641 |
| Sentinel | 24578 |

The Operator is in possession of the claims by virtue of an Assignment and Release agreement dated April 8, 1965, between Thomas F. Miller and Melvin Ray Murray which established Thomas F. Miller as the sole lessee of a Mine Lease dated January 2, 1965, between Thomas Frederick Miller and Melvin Ray Murray, lessees and Vipont Silver Mining Company, lessor and owner of the claims.

A Lien and Subordination Agreements executed by the owner of the claims is attached hereto and made part hereof.

DRAFT HKirkemo/mm
5/26/66

EXPLORATION CONTRACT
THOMAS F. MILLER
OME-6432

EXHIBIT A

The purpose of this project is to explore by core and non-core drilling from surface drill sites for silver-bearing ore bodies in the Vipont limestone formation (Mississippian? age), the Phelan limestone formation (Permian-Pennsylvanian age), and other favorable formations that may be present.

General Provisions

A bulldozer of sufficient size to prepare necessary access roads and drill sites shall be used but not less than a Caterpillar D-7 ~~to exceed a Caterpillar D-7~~ or equivalent size of any other make.

All ~~drill~~ holes shall be drilled from the surface, cased through the overburden, non-core drilled for about two-thirds of ~~this~~ the total depth, and completed with not less than AX core size (nominal diameter 1-1/8") or equivalent wire-line size drill equipment.

Facilities shall be provided for recovering diamond drill sludge, and such sludge shall be retained when drilling in significantly mineralized ground.

The diamond drill core shall be stored in boxes identified as to hole number with markers in the core sections indicating the depths represented.

Significantly mineralized core in lengths not to exceed 5 feet each shall be split and one split assayed for gold and silver.

Wherever the core recovery is less than 60 percent, a split of the corresponding retained sludge and a split of such core as may have been recovered shall be assayed separately and the assay results combined according to standard practice to represent a single sample. The remaining core shall be stored in proper sequence with the unsampled core, and the remaining sludge shall be stored in suitable containers properly identified as to source and location. The stored core and sludge samples shall be made available for Government inspection and possible use. With prior Government approval, the Operator may dispose of the stored core and samples.

All drill holes shall be logged, and copies of the logs of completed holes together with plans and sections showing geology and assays shall be furnished monthly to the Government. Such logs shall be accompanied by true copies of assay certificates for all samples.

The Operator shall provide such supervision, labor, and technical services as may be required to complete the work in a satisfactory manner.

The location, direction, and extent of each work item shall be subject to prior Government approval.

The Government will not participate in the costs incurred of ~~for~~ incomplete drill holes, ~~except those abandoned with prior Government approval in writing.~~

## Description of the Work

The work shall consist of bulldozing access roads to 20 drill sites, leveling the sites, and drilling 20 holes totalling not more than 12,800 feet.

The drill sites shall be located in three areas, Vipont area, Midway area, and the Lexington-Argenta-Cassius area as shown on Figure 2,

entitled "Map Showing Proposed Drill Holes, Vipont Property, Ashbrook Mining District, Box Elder County, Utah" which is attached hereto and made a part hereof.

All holes are to be drilled vertically unless results of drilling dictate changes in subsequent holes.

The holes are to be drilled from the surface with non-coring drill equipment to penetrate the overburden and most of the shale formations overlying the limestone favorable formations, and with diamond drill coring equipment to penetrate the limestone favorable formations. The tentative approximate footages of non-core and core drilling and total depth for each hole in the three areas are as follows:

| Areas and Hole No. | Feet of Non-core Drilling | Feet of Core Drilling | Total Length Feet |
|---|---|---|---|
| Vipont Area | | | |
| V-1 | 540 | 100 | 640 |
| V-2 | 560 | 100 | 660 |
| V-3 | 560 | 120 | 680 |
| V-4 | 600 | 110 | 710 |
| V-5 | 640 | 105 | 745 |
| V-6 | 675 | 95 | 770 |
| Midway Area | | | |
| N-1 | 380 | 195 | 575 |
| N-2 | 400 | 180 | 580 |
| N-3 | 400 | 180 | 580 |

| | | | |
|---|---|---|---|
| **Lexington, Argenta, Cassius Area** | | | |
| G-1 | 420 | 255 | 675 |
| G-2 | 430 | 250 | 680 |
| H-1 | 480 | 225 | 705 |
| H-2 | 470 | 200 | 670 |
| I-1 | 550 | 245 | 795 |
| J-1 | 600 | 235 | 835 |
| K-1 | 560 | 235 | 795 |
| L-1 | 250 | 300 | 550 |
| M-1 | 120 | 265 | 385 |
| M-2 | 120 | 255 | 375 |
| M-3 | 145 | 250 | 395 |
| Total - three areas | 8,900 | 3,900 | 12,800 |

These estimates are subject to change as information is accumulated during the progress of drilling. The depth of non-core drilling and total depth of each hole may be changed in order to avoid non-core drilling in ~~the~~ favorable limestone formations.

The supervising engineer or geologist shall closely and frequently inspect rock cuttings obtained from the non-core drilling. Non-core drilling shall be discontinued and diamond core drilling begun when the cuttings indicate that ~~if~~ the shale-limestone contact ~~is~~ encountered has been penetrated at shallower depths than estimated above.

The location ~~and~~ of depth of non-core and core drilling in each drill hole may be changed with the prior approval of the Government.

## Estimated Costs of the Project

**Actual Costs**

Category (1) Independent Contracts

| | | |
|---|---|---|
| Mobilization and demobilization, one bullodzer | $ 100.00 | |
| Bulldozing access roads and preparing drill sites | 500.00 | |
| D-4 50 hours @ $10.00/hour | | |
| D-6 40 hours @ $12.50/hour | | |
| D-7 33 hours @ $15.00/hour | | |
| Non-core and diamond core drilling, ~~XXXXXXXXXX~~ | | |
| 12,800 feet | 68,740.00 | |
| Non-core drilling @ $4.70/foot | | |
| BX wire line core drilling @ $6.90/foot | | |
| AX or AXM core drilling @ $6.80/foot | | $69,340.00 |

Category (2) Personal Services

None except:

| | | |
|---|---|---|
| 1 Supervisor-geologist-engineer | | |
| 8 months @ $750.00/month | $ 6,000.00 | |
| 1 Outside geological consultant | | |
| 8 days @ $75.00/day | 600.00 | $ 6,600.00 |

Category (3) Operating Materials and Supplies

None except:

| | | |
|---|---|---|
| 400 cardboard core boxes @ $1.00/each | $ 400.00 | |
| 300 sample bags @ $0.10/each | 30.00 | $ 430.00 |

Category (7) Miscellaneous

None except:

| | | |
|---|---|---|
| (Assaying of) 300 core and sludge samples for gold and silver assays @ $3.00/sample | $ 900.00 | |
| Consultant's travel expenses | | |
| Salt Lake City, Utah, to Vipont property and return, 1,500 miles @ $0.10/mile | 150.00 | |
| Per diem, 8 days @ $16.00/day | 128.00 | |
| Payroll taxes, F.I.C.A., insurance, etc. | 1,000.00 | |
| Accounting and office expenses (8 months @ $31.25/month) | 250.00 | $2,428.00 |
| Total Estimated Actual Costs (rounded) | | $78,800.00 |
| Government Participation @ 75% | | $59,100.00 |

1/ Includes all costs whatsoever such as mobilization and demobilization, moves between holes, cementing and redrilling, drill mud, additives, hole plugging agents, reaming and casing, supply and transportation of water for drilling, delays for the convenience of the Operator, etc.

2112 Westminster Avenue
Salt Lake City, Utah 84108
April 29, 1966

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170 m
JKJ 110
120K

Frank E. Johnson
Office of Minerals Exploration
Washington 25, D. C.

Subject: Additional Information for OME-6452

Ref: (a) OME-6452 (silver) Vipont Property, Box Elder County, Utah

(b) Requests from Mr. J. W. Hasler for the original copy of the lein subordination agreements, financial statement and clarification of Joy drilling bid.

Dear Mr. Johnson:

I have obtained the additional information for my proposal as requested by Mr. Hasler.

I personally contacted Mr. Nino Trujillo, Salt Lake City, manager of core drilling division of Joy Manufacturing Company, and discussed all aspects of the drilling program with him. He assured me that all contingencies were in the basic price per foot. He then called Mr. J. M. Murray, manager contract drill division who made the bid. I received their revised bid Friday, April 29. At this time I called Mr. Murray in Michigan City, Indiana, and discussed the drilling with him. He verified that their fixed unit price includes all contingencies--more specifically:

1. mobilization and set up
2. cementing, waiting for cement to set, and drilling out cement
3. reaming
4. transfer of water
5. mud and other additives
6. moving equipment between drill sites
7. casing and cost of casing
8. all other contingencies

He also said that their credit department would not be concerned about immediate payment every month as long as I had an OME contract which would assure them of eventual payment. I mention this because Mr. Hasler informed me that it would take two to three months to get monthly progress payments from the OME after I submitted my monthly invoices.

I am assured that Joy's price is good.

I would revise the drilling proposal to read:

| | | | | |
|---|---|---|---|---|
| Rotary Drilling | 7942' | x $4.70 | = | $37,327 |
| BX Wireline Core Drilling | 3651' | x 6.90 | = | 25,192 |
| *AXM Core Drilling | 1217' | x 6.80 | = | 8,276 |
| | 12,810' | | | $70,795 |

* Can be BX

The AX core is added as requested by Mr. Hasler.

Would you please add the cost of core boxes to my application. Joy gave a price of $1.00 per box. This box holds 10' of core. I would need approximately 487 boxes.

487 boxes x $1.00 ea for a total cost of $487.00

Financial Statement

I have approximately $12,000 in cash or equivelent assets. I hold shares of stock in:

American Silver Mining Company
Couer D'Alene Mining Company
Kennecott Copper Corporation
Hercules Powder Company

All of the above securities can be traded immediately.

I can borrow approximately $8,000 plus from the Continental Bank and Trust Company at a good interest rate. I have fixed assets not included above which would help secure this loan.

*Because many friends, relatives, and other interested people have expressed a desire to give me financial backing, I plan to incorporate and sell a primary issue of stock worth $25,000 plus, providing the OME loan is approved.

*Some of this money would be used for additional work that I may do at the mine, such as trenching, assaying, and to buy a pickup. Also, some of it would be held in reserve.

Also, the Eagle Fipcher Company has shown interest in backing me, along with a good friend. However, I don't think I will go this way, but will sell stock instead.

I will have no trouble financing my portion and would be in the position to pay Joy their monthly invoices for three months or more if they desire while my invoices to the OME are being processed.

Please find the original copy of the lein and subordination agreement enclosed, along with Joy's revised drilling bid.

A copy of this letter, with the drill bid, has been sent to Mr. Hasler.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

TFM:sm

Enclosures

(219) 872-7221

JOY MANUFACTURING COMPANY
900 WOODLAND AVENUE • MICHIGAN CITY, INDIANA 46360

April 27, 1966

Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

Dear Mr. Miller:

My letter dated November 15, 1965, listed prices for approximately 7,000 ft. of rotary and core drilling as outlined in your specification dated November 8, 1965.

I have been advised that you now plan to drill a total of 12,810. Approximately 8,000 ft. of this total will be non-core drilling and 5,000 ft. will be core drilled. We submit the following prices:

| | |
|---|---|
| Non-Core Drilling | $4.70 per ft. |
| BX Wireline Core Drilling | $6.90 per ft. |
| AXM Core Drilling | $6.80 per ft. |

We will review our prices after 7,000 ft. have been drilled out. If our progress is better than we anticipate or if our costs are lower than we anticipate, we will reduce the prices accordingly. We cannot determine what the reduction, if any, will be until we make a detailed study of our costs after the first 7,000 ft. have been drilled out. We will, however, guarantee you that the prices for the entire 12,810 feet will be no higher than those listed above.

We again thank you for inviting us to bid on your drilling requirements.

Yours truly,

J. M. Murray, Manager
Contract Drill Division

Jmm:hs

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
U. S. Geological Survey -- Denver Federal Center
Building 25- Room 2284
Denver, Colorado 80225

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April 22, 1966

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

Transmitted herewith are copies of figures 4 and 5 to accompany the report of examination already submitted on the subject docket. Figures 3 and 4 were forwarded yesterday to Mr. Kirkemo. Transmitted also is an estimated breakdown on the rotary plug bit drilling and the core drilling footage proposed in the Vipont area, Midway area, and the Lexington, Argenta and Cassius areas. My estimated footage for the rotary plug bit drilling is somewhat higher than the applicants, and I think the plug bit should not go deeper than shown on the accompanying table. Perhaps the 62% of 12,810 or 7,942 more is a suitable figure for plug-bit drilling.

I conferred with the applicant, Mr. Thomas F. Miller via telephone this morning and requested that he obtain a written quotation or bid from the Joy Manufacturing Company, his lowest bidder stating that their bid dated November 15, 1965, includes footage drilled from 7,000 feet to 12,810 feet, and that the bid includes cementing, waiting for cement to set and drill out cement. Reaming for casing and casing, mud and other drill hole stabilization agents, moving core drill from site to site. I also suggested that an Ax size drilling category be established to safeguard the probable loss of a hole by permitting only the one, Bx size hole to be drilled.

Mr. Miller will reply by correspondence as soon as the data requested is received by Joy Manufacturing Company.

J. William Hosler

X /

Estimated Footages of Rotary drilling and Core drilling on the Vipont Property, Box Elder County, Utah, OME-6452 (Silver)

Vipont Area

| Hole No.± | Rotary Drilling | Core ft. | Total ft. |
|---|---|---|---|
| V-1 | 540' | 100' | 640' |
| V-2 | 560' | 100' | 660' |
| V-3 | 560' | 125' | 685' |
| V-4 | 600' | 115' | 715' |
| V-5 | 640' | 105' | 745' |
| V-6 | 675' | 95' | 770' |
| | 3,575' | 640' | 4,215' |

| HOLE NO. | MIDWAY AREA | | VIPONT MINE |
|---|---|---|---|
| | Rotary Drilling Footage | Core Drilling Footage | Total Footage |
| N-1 | 380 | 195 | 575 |
| N-2 | 400 | 180 | 580 |
| N-3 | 400 | 180 | 580 |
| | 1,180 | 555 | 1,735 |

X X 3

HOLE NO. LEXINGTON, ARGENTA, CASSIUS AREAS

| | Rotary Drilling Footage | Core Drilling Footage | Total Footage |
|---|---|---|---|
| G-1 | 420 | 255 | 675 |
| G-2 | 430 | 250 | 680 |
| H-1 | 480 | 225 | 705 |
| H-2 | 470 | 200 | 670 |
| I-1 | 550 | 245 | 795 |
| J-1 | 600 | 235 | 835 |
| K-1 | 560 | 235 | 795 |
| L-1 | 250 | 300 | 550 |
| M-1 | 120 | 265 | 385 |
| M-2 | 120 | 255 | 375 |
| M-3 | 145 | 250 | 395 |
| Total | 4,145 | 2,715 | 6,860 |

SUMMARY

| | | | |
|---|---|---|---|
| VIPONT AREA | 3,575 | 640 | 4,215 |
| MIDWAY AREA | 1,180 | 555 | 1,735 |
| LEXINGTON, ARGENTA & CASSIUS AREA | >4,145 | 2,715 | 6,860 |
| | 8,900 | 3,910 | 12,810 |

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
U. S. Geological Survey -- Denver Federal Center
Building 25- Room 2284
Denver, Colorado 80225

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April 21, 1966

Memorandum

To: Harold Kirkemo

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

Enclosed is a copy of a letter dated March 10, 1966 from the subject applicant concerning the correction of claim names in the application. Page 2 of the letter gives the correct spelling. This was an oversight on my part as I had previously requested the information from the applicant by telephone.

J. William Hosler

Enclosure

2112 Westminster Avenue
Salt Lake City, Utah 84108
March 10, 1966

Department of the Interior
Office of Minerals Exploration
Denver Federal Center--Bldg. 20
Denver, Colorado 80225

Subject: Clarification of discrepancies on claims

Ref: (a) OME-6452 (Silver) Vipont Property, Box Elder County, Utah

(b) Telephone call from Mr. Hasler to myself concerning discrepancies on claims data in my proposal and claims survey plate.

Dear Mr. Hasler:

I rechecked the claims data at the survey office and verified that there are only fifty three (53) patented mining claims owned by the Vipont Silver Mining Company, which I have leased.

The Millsite Claims: Mahogany Millsite, survey 42B; Champion Millsite, survey 43B; Lexington Millsite, survey 44B; Argenta Millsite, survey 41B--These are not patented mining claims. All four (4) of these claims were cancelled, "letter from com. Dec 21, 1893". The reason for cancellation was not given.

Hence the Vipont Silver Mining Company does not have the claims. I do not intend to stake them myself or use them as millsites. You will note that the proposed exploration as outlined in my application is a considerable distance from these millstie claims.

I talked to my attorney concerning the number of claims listed on the Lease, Assignment and Release, and the Lien and Subordination Agreement. He said that there would be no legal conflict if I wrote and explained why there are 53 claims instead of 57.

When I leased the land from the Vipont Silver Mining Company, I copied the names of the claims from their Articles of Incorporation, which listed the millsites as patented. This of course, was in error. The Vipont Silver Mining Company leased and later bought the claims from the Vipont Mining Company. The Vipont Mining Company listed the claims as "unpatented."

As you will note, the lien and subordination agreement lists the correct patents surveys.

Ref. Sec. 2, pages 1 and 2 of my original application dated May, 1965.

There are errors here. The claims which the lease and lien cover are corrected to read as follows:

Patented Claims Covered Under Respective Surveys

| Survey No. | M.E. Pat. No. | Date |
|---|---|---|
| 5078 | 42134 | 6/12/1905 |

Dugway 1,2,3,4,5,6, 8 through 20

Southern 1,2,3

Northern 1,2,3,4,5

Catherine 1,2,3,4,5,6

Contact Mine 1,2,3

West End

Sentinel Mine No. 2

Poorman

Fraction

Park 1,2,3,4

| Survey No. | M.E. Pat. No. | Date |
|---|---|---|
| 38 | 24577 - Clipper | 7/5/1894 |
| 39 | 24578 - Sentinel | 7/5/1894 |
| 37A | 24576 - Homestake | 7/5/1894 |
| 37B | 24576 - Homestake Millsite | 7/5/1894 |
| 41A | 24640 - Argenta | 7/17/1894 |
| 43A | 24642 - Champion | 7/17/1894 |
| 42A | 24641 - Mahogany | 7/17/1894 |
| 44A | 24643 - Lexington | 7/17/1894 |
| 40 | 24639 - Black | 7/17/1894 |

Sincerely Yours,

Thomas F. Miller

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Denver Federal Center -- U. S. Geological Survey
Building 25- Room 2284
Denver, Colorado 80225

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March 24, 1966

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: On-site report: OME-6452 (Silver)
Thomas F. Miller
Vipont property
Box Elder County, Utah

Transmitted herewith is an on-site report of examination by J. William Hasler, Geologist. It is recommended that a moderate diamond drilling program be completed to explore for extension of ore shoots in the Vipont limestone. The proposed exploration should be reviewed with considerable weight placed on the Wardlaw report which accompanied the original application for exploration assistance.

J William Hasler
by m.e.c.

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MAR 25 1966

Report of Examination

Region III

OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

By

J. William Hasler

March 22, 1966

FIELD
EXAM. REPT.

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The Property---------- 2

Ownership of Property---------- 4

Geology and Ore Deposits---------- 6

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Conclusions and Recommendations---------- 15

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Figure 1.-- Claim map of Vipont property---------- 2A

Figure 2.--Proposed Exploration Drilling on the Vipont property,

Box Elder County, Utah---------- 8A

## INTRODUCTION AND SUMMARY

The applicant, Thomas F. Miller, 2112 Westminster Avenue, Salt Lake City, Utah applied for financial assistance to The Office of Minerals Exploration on May 18, 1965 to explore probable extension of silver ore bodies at the Vipont Mine, Box Elder County, Utah.

The property was visited by Hugh M. Conners on July 8, 1965 in company with the applicant. The applicant's proposals were much too ambitious, and lacked considerable geological justification, as well as having insufficient financial backing, and he was advised to submit a more reasonable program. As a result a second on-site examination was made on November 4, 1965 by J. W. Hasler after the applicant had submitted additional information requested from him. During the November field examination an appraisal was made in light of the new information, and amended proposal, submitted by the applicant.

## THE PROPERTY

The Vipont Silver mine is located in the Ashbrook Mining District, Box Elder County and consists of 53 patented lode mining claims covering portions of the Sec. 6, T. 14 N., R. 17 W.; Sec. 1, T. 14 N., R. 18 W.; Sec. 31, T. 15 N., R. 17 W.; Sec. 36, T. 15 N., R. 18 W.; Sec. 7, T. 14 N., R. 17 W.; Sec. 12, T. 14 N., R. 18 W., SLM (Figure 1). The property may be reached from Salt Lake City, Utah by driving northward on interstate U. S. Highway 15 to Tremonton, Utah, then northwestward to interstate U. S. Highway 80 north U. S. Highway and 30 south to Strevell, Idaho, a distance of approximately 105 miles from Salt Lake City, Utah. Turn left or west at Strewell, Idaho on gravel road, do not proceed to Stanrod, at 18.3 miles continue straight ahead at junction toward Grouse Creek, do not take road to Almo or Yost. At 16.0 miles turn left at a "Y" after crossing stream. At 22.0 miles turn right at a major junction, at a sign that reads "Diamond Fields", or right at the Grouse Creek and Lyn sign, 22.3 miles turn right after crossing stream. At 29.0 miles from Strevell, Idaho turn left at small ranch with windmill and at 29.2 miles turn right and continue west through the pass. Stay on the road highest on the mountain, and the Vipont mine is 8 miles after the last turn-off. The Ashbrook district is in the area where the Grouse Creek and Grouse Creek ranges unite and the Vipont mine lies in a rather rugged area that is generally 7,000 feet above sea level. The Vipont Mine has had periods of production intermittently from 1873-1942, during which time a total known production of 180,000 tons of ore was mined that produced 83,027 ounces gold, and 3,423,470 ounces of silver. At one time the Vipont mine was the

fifth largest producer of silver in the State of Utah. This production averaged about 17.2 ounces silver, and 0.04 ounces gold per ton. A few individual ore bodies, however, contained material assaying as much as 10,000 ounces silver and 4 to 5 ounces gold per ton.

## OWNERSHIP OF PROPERTY

The applicant has leased the land for 15 years, starting with January 2, 1965, with a 5 year option. All leases and assignments and release documents dated April 8, 1965 are filed with the original application. Legal description of claims as follows: Figure 1. 53 Patended Lode Mining Claims (Mineral Survey 5078, 37A, 37B, 38, 39, 40, 41A, 42A, 43A, 44A) covering portions of the following: Sec. 6, T. 14 N., R. 17 W.; Sec. 1, T. 14 N., R. 18 W.; Sec. 31, T. 15 N., R. 17 W.; Sec. 36, T. 15 N., R. 18 W.; Sec. 7, T. 14 N., R. 17 W.; Sec. 12, T. 14 N., R. 18 W.; SLM.

Patented Claims Covered Under Respective Surveys

| Survey No. | M. E. Pat. No. | Date |
|---|---|---|
| 5078 | 42134 | 6-12-1905 |

Dugway 1, 2, 3, 4, 5, 6, 8 thru 20

Southern 1, 2, 3

Northern 1, 2, 3, 4, 5,

Catherine 1, 2, 3, 4, 5, 6

Contact Mine 1, 2, 3

West End 1

~~Sentinentel~~ Sentinel Mine No. 2

Poorman

Fraction

Park 1, 2, 3, 4

| | ME Pat. No. Name | |
|---|---|---|
| 38 | 24577 - Clipper | 7-5-1894 |
| 39 | 24578 - Sentinel | 7-5-1894 |
| 37A | 24576 - Homestake | 7-5-1894 |
| 37B | 24576 Homestake Millsite | 7-5-1894 |
| 41A | 24640 - Argenta | 7-17-1894 |
| 43A | 24642 - Champion | 7-17-1894 |
| 42A | 24641 - Mahogany | 7-17-1894 |
| 44A | 24643 - Lexington | 7-17-1894 |
| 40 | 24639 - Black | 7-17-1894 |

Note: "The applicant listed only 53 patented lode mining claims here. When the Federal Land Office checked the M. E. Pat. numbers for the claims only the above listed claims were patented and that the following millsites were not - Champion Millsite, Survey 43B, Lexington Millsite, 44B; Argenta Millsite, 41B; and Mahogany Millsite, 42B. The Mahogany Millsite is covered by patented claim Park No. 4. No work has been proposed on these millsites, and they are not included for possible lien, but may be included if required, if they are the number 57 should be used instead of 53 patented claims." A recent check with the applicant indicates that the millsites listed in the quoted note cannot be included for possible lien and subordination.

The term of the lease is for a fifteen year period dating from Jan. 1, 1965, and the Lessees shall pay to the Lessor, on all ores extracted from the leased premises and milled and sold, a royalty of an amount of 10% of the net mint, smelter, or custom mill return per ton of ore.

MME Form 52, Lien and Subordination Agreements have been executed and accompany the application.

The applicant informed the examining geologist that he is now able to obtain more adequate funds in support of his portion of the proposed exploration should a contract be executed, than was originally planned.

The Lexington and Argenta workings are in the Phelan limestone (Permian-Pennsylvanian age). Mineralization appears to be scattered and may not warrant further exploration. The depth of the holes proposed by the applicant in this area suggests that his main target is the underlying Vipont limestone, and proposed drill hole No. 3, of the original application appears to be intended to test the underlying Sentinel limestone.

From Wash. Review May 27, 1955

## Proposed Exploration

The applicant presented a carefully prepared application for a $237,000 exploration project to find silver-bearing ore in the vicinity of the old Vipont mine, Box Elder County, Utah. Plan outline of stopes yielding the bulk of the ore are within an area about 1600 feet long and 1000 feet wide. These show irregular, lenticular, replacement deposits trending in a southwesterly direction in the upper Vipont limestone formation (Mississippian age?) near its contact with the overlying Wardlaw shale formation. A rhyolite sill underlies the ore-bearing limestone. Other limestone formations in the district also are mineralized. The ore bodies are commonly parallel to the bedding planes of the limestone in or near the crests of minor folds in a broad synclinal structure which plunges about 20 degrees to the southwest. Pipelike, vertical stringer stockworks of vein material were penetrated under some of the tabular ore bodies.

The applicant's initial exploration proposal was based largely on some rather weak geologic evidence, and he was asked to submit a revised program based on additional geologic mapping and more restrictive targets, to be tested possibly by diamond drilling: the material was submitted, reviewed and examined, and additional diamond drilling bids were obtained and the revised program is herein outlined. (Figure 2.)

Detailed geologic mapping strongly indicates that the Vipont and Midway faults mapped previously by Peterson are non-existant. There is considerable evidence indicating that the Mill fault is not a vertical fault, but only the extension of the thrust plane between the Phelan limestone and the

Wardlaw shale. There are two or more major thrust faults. There is evidence that Sentinel limestone and beds above it were thrust from the southwest at a relatively low angle over the Harrison series. Also that the Phelan limestone was thrust over the Wardlaw shale in which bearings from the Phelan limestone and Wardlaw shale are difficult to obtain and consequently difficult to project.

There is considerable minor folding or crenulations in the Vipont limestone underground that can also be verified on the outcrop. Much of the best developed gossan and accompanying alteration was found near these crenulations.

There is also Wardlaw shale west of where the Midway fault was projected. It is a relatively thin section and has been nearly thrust out of the area, but the Vipont limestone is the least affected by the thrusting. The thrusting accounts for the thinning and thickening of the Wardlaw shale as well as numerous small faults, and the Wardlaw shale has been completely thrust out on the extreme southeast part of the major syncline. As was previously mentioned, there is considerable alteration near the crenulations in the Vipont limestone, and is evidenced on or near the contact of the Vipont and Wardlaw contact from cross section D-D' section line to the F-F' cross section. The Cassius outcrop is in a crenulated area in the Vipont limestone, and shows the alteration very well. As a result of the revised geology some 20 diamond drill holes in the Vipont, Midway, and Lexington, Argenta and Cassius areas have been proposed.

Vipont Area.

Six holes have been proposed here to intersect the downdip extension

of ore shoots known to exist on or below the Phelan Tunnel level, and to intersect the Vipont limestone at an elevation of 6800 feet. The holes are spaced at 100 foot intervals along a cross section V-V' that intersect cross sections E-E' and D-D' respectively. Figure 2.

| Hole No. | Est. Depth |
|---|---|
| 1 | 640 |
| 2 | 660 |
| 3 | 685 |
| 4 | 715 |
| 5 | 745 |
| 6 | 770 |
| Total footage Vipont area | 4,215 |

Midway area

Three diamond drill holes are proposed along cross section N-N' that intersects cross section P-P' and are designed to intersect down dip extension of ore shoots found at the 7135 level of the Midway tunnel. There is considerable alteration on the surface in Vipont limestone above the Midway tunnel and much of the good ore taken from the Midway indicates mineralized material extended northwest beyond the Vipont workings. Figure 2.

| Hole No. | Estimated total depth |
|---|---|
| N-1 | 575 |
| N-2 | 580 |
| N-3 | 580 |
| | 1,735 |

Lexington, Argenta, and Cassius Area

These eleven holes are designed to test the mineralized fault zone at

depth along which the Lexington, Argenta and Cassius workings occur. The structure is strong and persistent and may well extend into the Vipont limestone, and make ore in the Vipont, according to the applicant.

| Hole No. | Total depth (feet) |
|---|---|
| G-1 | 675 |
| G-2 | 680 |
| H-1 | 705 |
| H-2 | 670 |
| I-1 | 795 |
| J-1 | 835 |
| K-1 | 795 |
| L-1 | 550 |
| M-1 | 385 |
| M-2 | 375 |
| M-3 | 395 |
| | 6860 |

The applicant estimates utilizing a total plug bit and core footage of 12,810 feet in the Vipont, Midway, Lexington, Argenta and Cassius areas respectively, the Plug bit and core footages is segregated as follows:

Rotary drilled

62% of 12,180' ---------- 7,942

Diamond Core drilled

38% of 12,180 ---------- 4,868

Total footage ---------- 12,810

Rotary Drilling

7,942' at $4.70/ft. ---------- 37,327.00

Diamond Core Drilling

4,868 ft. at $6.90/ft. ---------- 33,589.00

Total cost ---------- $70,916.00

Bulldozer D-4 Caterpillar

Big enough?

Road Building and site preparation

| | |
|---|---|
| 50 hrs. at 10.00/hr. | 500.00 |

Analytical Work

| | |
|---|---|
| 20 holes x 10 assays/hole | |
| at 3.00/assay | 600.00 |

Supervision, Geology and Engineering

| | |
|---|---|
| 700 hrs. at $6.00/hr. | 4,200.00 |
| Total estimated cost | $ 76,216.00 |

## Recommended Exploration Program

As a result of field examination and careful review of the applicant's revised program it is deemed more probable to test the Vipont and Midway areas as planned by the applicant, and to test the most shallow areas of the Lexington, Argenta and Cassius areas, where the workings are shallow, and the shear or fault zone is persistent. Production from these areas in the Phelan limestone was only sporadic and more or less surficial, therefore drill holes in the latter area could be proposed to test along section M-M' with Holes M-1, M-2, M-3 respectively for a total estimated footage of 1,155.

Rotary drilling at 62%= 716.10'

Diamond drill core at 38%= 438.90

1,115.00'

Is it sufficiently mineralized?

If the Vipont limestone were sufficiently mineralized between the Cassius outcrop and the Argenta workings, additional drilling could be done by drilling one hole each near the Argenta and Lexington workings to test the mineralized fault zone where it intersects the Vipont limestone e.g. at K-1, I-1 and at G-1. The latter holes could be considered on a Stage II portion of an exploration program.

State II footages and costs would be as follows:

| | |
|---|---|
| K-I | 795' |
| I-1 | 795' |
| G-1 | 675' |

Rotary driling:

62% of 2,265' or 1,204.30 at 4.70/ft. = $5,660.21

Diamond Core drilling

38% of 2,265 or 862.70' at 6.90/ft. = $5,952.63

## Conclusions and Recommendations

It is concluded that there is a possibility of finding silver-bearing ore bodies as down-dip extensions of similar size and grade that was mined from the Vipont miner periodically between 1873 and 1942, with a moderate diamond drilling program; herein outlined. It is recommended however that the drilling program be conducted, if approved, in two separate stages. That Stage I include the proposed holes in the Vipont, Midway areas and possibly 3 holes in the Cassius area to test for mineralization of the fault or shear zone in the most shallow area and its intersection with the Vipont limestone. If these holes prove favorable a Stage II program might further extend the exploration to the Argenta, and Lexington areas. It is recommended that a moderate exploration drilling program be completed with the following recommendation from the "Wardlaw Report" dated December 7, 1924 being duly considered;

"The particular characteristic of this ore is that it is very spotted in values as well as in quantity. It is impossible to judge this ore by inspection. Assaying is an absolute necessity. The streaks pitch in most any direction without warning indications, and at times it was difficult to define the outline of the streak, so closely did the hanging wall and footwall resemble that of the ore streak".

"The very unreliable spotty nature of Vipont ore as to size and grade makes estimations difficult, but we have found the ore streaks to be fairly persistent so I would think that those you now have might last for quite a while." All other aspects of the Wardlaw report should also be considered, as Mr. Wardlaw was the former superintendent of the Vipont Mine for many years and in the opinion of the examining geologist the most competent, and best informed individual concerning the subject property.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
U. S. Geological Survey -- Denver Federal Center
Building 25 - Room 2284
Denver, Colorado 80225

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March 10, 1966

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

A telephone conversation yesterday with Mr. Thomas F. Miller was for the purpose of requesting him to clarify various discrepancies between the mineral survey plat of the claim group on the subject property, the text of the application, the lease, and the claim maps submitted with the original application.

J. William Hosler

Denver Federal Center-Bldg. 20
Room D2211
Denver, Colorado 80225

December 27, 1965

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Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah

Subject: OME-6452 (Silver)
Vipont Property
Box Elder County, Utah

Dear Mr. Miller:

This is to acknowledge the receipt of the additional costs and bids requested by me during our field examination on November 4. I will finish the report as rapidly as possible and submit it to Washington. Your next correspondence relative to your exploration project will be from Washington.

Sincerely yours,

J. William Hasler

J. William Hasler
Field Officer, Region III
Office of Minerals Exploration

JWH:mc:12/27/65

cc: Chief OME
6452
Chron

MME Form 7
(2/63)

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| Date | Surname | Co |
|---|---|---|
| 12/27 | Kirkemo | 120 |
| | Selbrede | 120 |
| 12/28 | Johnson | 110 |
| 12/28 | Cole | 220 |
| | | 120M |
| | | |
| | | |
| | | |
| | | |

DEC 28 1965

Mr. Thomas F. Miller
2112 Westminister Avenue
Salt Lake City, Utah 84108

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

Dear Mr. Miller:

This will acknowledge receipt of your revised cost estimate and copies of bids from three drilling contractors. These data together with other information available to us will be used in our review of your application.

Sincerely yours,

(signed) FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

HKirkemo/gla (12-27-65)

cc to: Director's Reading File
Division File
Economic Geology File
OME File
OME Region III
OME Reading File
Harold Kirkemo

Memorandum to J. W. Hasler, Field Officer, Region III:

Following our telephone conversation December 23, we searched our files and records but did not find the old production records you sent to us on or about November 19. Would you please check your records to determine if the material was mailed?

/s/ Kirk

Harold Kirkemo

/29/65 - Bill: We found the material in our files today, so ignore the memorandum note. /s/ Kirk

23263

12/23/65

Kirk: No indication that copies were sent directly to Region III. Do you want this material reproduced to forward to Hasler?

gla

Region III received copies according to Hasler in phone call 12/23/65.

Kirkberns.

2112 Westminster Avenue N. E.
Salt Lake City, Utah 84108
December 18, 1965

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DEC 23 1965
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Department of the Interior
Office of Minerals Exploration
Washington 25, D.C.

Subject: Cost Amendment to Amended OME-6452, dated October 25, 1965

Ref.: (a) OME-6452 (Silver) Vipont Property, Box Elder County, Utah

(b) Amendment #1 to OME 6452 dated October 25, 1965

As was suggested by your OME field officer, Mr. Hastler, I have agreed to revise my proposal as follows:

1. Have a contract core driller do the drilling instead of myself, thereby eliminating my risk and giving me more freedom to supervise the program and do the required geology and engineering work.

2. Drill the top portion of the holes with a rotary drill or similiar type drill and then coring only the potential ore zones.

In order to comply with the above suggestions, I requested that Boyles Brothers Drilling Company and Longyear Drilling Company rebid the drilling. Along with this, I requested a bid from Joy Manufacturing Company.

The drillers bid on the ground rules specified in attachment #1. This is my letter requesting them to bid. I talked to all of the various company representatives and answered their questions concerning the project.

After seeing the savings in cost, I am convinced this is the best way to go.

In my analysis of the bids, Joy Manufacturing Company has by far the best bid, with Longyear second and Boyles a distant third.

I have talked to Joy Manufacturing Company about their bid and we have reached a common agreement on all of the ground rules.

Total footage proposed as by Ref. (b) was 12,810 feet. The footage would be broken up as follows:

| | |
|---|---|
| Rotary Drilled: | |
| 62% of 12,810 | 7942' |
| Diamond Core Drilled: | |
| 38% of 12,810 | 4868' |
| Total Footage | 12,810' |

Project cost will be as outlined below:

| | |
|---|---|
| Rotary Drilling | |
| 7942' x $4.70 = $37,327 | |
| Diamond Core Drilling | |
| 4868' x $6.90 = 33,589 | |
| $70,916 | |
| Total Drilling Cost | $70,916 |
| Cat Work | |
| required for drill sites and minor road work | |
| 50 hrs. x $10/hr. | 500 |
| Analytical Work | |
| assaying cores | |
| 20 holes x 10 assays per hole x $3 each | 600 |
| Supervision, Geology and Engineering | |
| It is estimated that 700 hours will be required by myself to do the supervision, geology and engineering required for this program. | |
| 700 hrs. x $6.00/hr. | 4,200 |
| Total Program Cost | $76,216 |

If the weather permits, I would like to start the drilling in late March or April. The drilling will take 8 to 9 months to complete, providing things go well. The drillers will be working on a one-shift basis, 6 days a week.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
TUNNEL DRIVING
MINE PLANT DESIGN
AND FABRICATION

Boyles Bros.
DRILLING COMPANY

CONTRACTORS-ENGINEERS-GEOLOGISTS

General Offices and Plant
1624 Pioneer Road P. O. Box 58 Phone 487-7595
SALT LAKE CITY, UTAH 84110

BRANCH OFFICES
PHOENIX
RENO
SPOKANE
DENVER
SACRAMENTO
SANTIAGO, CHILE
LIMA, PERU

December 16, 1965

Mr. Thomas F. Miller
2112 Westminster Ave.
Salt Lake City, Utah 84108

Dear Sir:

I must apologize for the delay, can only assure you we do not conduct our business this slowly. I just goofed.

The following is our proposal for drilling your property in Northwest Utah. Hope the following is competative.

1. - Mobilization - each rig. $220.00
2. - Rotary drilling 4 + " holes
   0 -- 500 @ 5.25 per ft.
   500 -- 1000 @ 6.10

3. - Core Drilling:

| | NC | NX | BX | AX |
|---|---|---|---|---|
| 0 - 250 | 12.20 | 9.50 | 9.10 | 9.10 |
| 250 - 500 | -- | 9.80 | 9.40 | 9.40 |
| 500 - 750 | -- | 10.10 | 9.70 | 9.70 |
| 750 - 1000 | -- | 10.50 | 10.10 | 10.10 |

4. - Boyles to pump water to drill sites with no charge.
5. - Set up and roads will be furnished with no charge to Boyles.
6. - Casing that is left by request or we are unable to salvage will be charged at list price.
7. - Delays caused by or asked for by owner will be charged for at $12.00 per hour.

We again wish to express our thanks for calling on us. Hope you and yours have a Happy Holiday Season.

Very truly yours,

J. F. Brennan

J. F. Brennan,
Field Supt., Drilling Division

JFB/rmv

Longyear
E. J. LONGYEAR COMPANY
General Offices, 76 South 8th St.
Minneapolis 2, Minnesota, U. S. A.
TELEPHONE: FEDERAL 9-7631 - CABLE LONGCO

November 30, 1965

Mr. Tom F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

EXPLORATION DRILLING PROGRAM VICINITY OAKLEY, IDAHO

Dear Mr. Miller:

1. In response to your request of November 8, 1965, and based on Mr. Wesley Brown's field observations, we are pleased to submit below for your consideration our proposal for your contemplated exploratory drilling program near Oakley, Idaho.

2. We understand that the program as now planned will consist of a minimum of 7,000 lin.ft. of rotary and diamond core drilling in vertical holes varying in depth from a minimum of 375 feet to a maximum of 875 feet; that approximately 60 percent of the upper portion of all holes will be rotary drilled and the lower portion core drilled; and that the formations to be penetrated will consist of shales, limestones and possibly minor amounts of rhyolites and quartzites in the basal portion of the holes. We further understand that all of the drill sites will be accessible by truck transportation; that tractor service for site preparation and building and maintenance of access roads, if required, will be furnished by you at no cost to the Longyear Company; and that water is available from nearby streams.

3. For this program we propose to furnish one rotary and one Longyear diamond core drill of suitable capacity, together with modern-type Longyear coring tools, and all service equipment as noted herein, required to complete the work as now planned. We further propose to operate the drills a minimum of one shift per day, six days per week.

4. We will carry public liability insurance covering personal injury and property damage, and Workmen's Compensation insurance and also all-risk insurance on the drilling equipment protecting against loss by theft, fire, flood, landslides and other similar hazards. Certificates showing the coverage referred to will be furnished upon request.

5. Based upon conditions as outlined above, and on your Specifications dated November 8, 1965, we are pleased to quote as follows:

a) Rotary drilling - overburden and bedrock
0 to 500 feet in depth----------$ 3.75 per foot

b) Diamond core drilling - employing latest Longyear wire line tools -

| | BQ WL - Minimum of 1-7/16" Dia. Core |
|---|---|
| From beginning of coring to 500 ft.--------- | $ 6.60 per foot |
| From 500 to 1,000 ft. in depth---------- | $ 6.90 per foot |

c) Cementing, waiting for cement to set and drilling out cement----------$11.95 per hour, plus cost of cement.

d) Delays for Owner's convenience or for which Owner is responsible---------- Rotary Drill $15.00 per hr. Diamond Drill $11.50 per hr.

e) Reaming for casing, if required----------$2.50 per foot, plus reimbursement for all casing or pipe left in hole at your request, or lost in hole through normal drilling operations.

f) Mud and other drill hole stabilization agents - will be invoiced to you at our cost, f.o.b. jobsite.

g) Tank-truck service - should it become necessary to furnish a truck in order to keep the drill amply supplied with water, it is understood and agreed that Longyear would be reimbursed for the resultant extra expense at the rate of $325.00 per month, plus 15¢ per mile for each mile water truck is used.

h) Moving core drill over hole previously drilled with our rotary drill----------$100.00 per hole

6. Drill cores will be turned over to your representative at the drill site in core boxes furnished by you.

7. Statements covering the work performed will be prepared as promptly as possible after the 15th and end of each month, and payment will be due within 20 days after receipt of invoice.

8. We appreciate very much the opportunity to quote on this work. If we are awarded the contract, we would be prepared to commence the drilling approximately in April of 1966 - weather and ground conditions permitting - and provided that satisfactory financial arrangements have been made with our contracting division to guarantee payment of our invoices.

Sincerely,

E. J. LONGYEAR COMPANY

Albin P. Wicklund

Contract Engineer-
Contract Drilling Division

APWicklund:bal

ACCEPTED:

MR. TOM F. MILLER

By:_____

Date:_____

(219) 872-7221

JOY MANUFACTURING COMPANY
900 WOODLAND AVENUE • MICHIGAN CITY, INDIANA 46360

November 15, 1965

AIR MAIL

Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

Dear Mr. Miller:

Thank you for your invitation dated November 8, covering your proposed drilling project in the extreme northwestern corner of Utah. Our bid covers 7,000 feet of rotary and core drilling, as outlined in your specification. We will expect you to provide suitable roads, level drill sites, and core boxes. We will provide the necessary equipment and a qualified drill crew to drill the holes to the desired depths.

We submit the following prices:

| | |
|---|---|
| Non-Core Drilling - | @ $4.70 per ft. |
| EX Core Drilling - | @ $6.90 per ft. |

We will provide one (1) truck mounted core drilling rig. This rig will perform both the rotary and the core drilling. The drill will be operated six (6) days per week.

Our employees will be covered with Workmen's Compensation Insurance under the state laws of Utah.

We trust that our bid will receive favorable consideration.

Yours truly,

JOY MANUFACTURING COMPANY

J. M. Murray

J. M. Murray, Manager
Contract Drill Division

JMM/gk

Attachment #1

2112 Westminster Avenue
Salt Lake City, Utah 84108
November 8, 1965

Request for Drilling Bid

This is a bid request for surface rotary and diamond core drilling that I want done on my property in northwestern Utah. If your company is interested in submitting bids on the drilling outlined below, please do so as soon as possible.

Location

Extreme northwestern corner of Utah. Drillers could live at the drill site, as there is good water, etc., or drive from Oakley, Idaho, 26 miles to the north. The roads are good gravel roads during the outdoor drilling season.

Objective

The primary objective is the exploration and search for silver and gold bearing ores in the Vipont limestone.

Basic Requirements

Surface Drilling

Approximately 11,000 feet of drilling of which 6710' will be rotary drilling and 4290' will be diamond core drilling. The holes will be rotary drilled (or equivelent) from the surface to approximately 62% of the total depth. From this point, diamond core drilling will commence and follow through to the completion of the hole.

All holes will be vertical. Depths will range from 375' to 875' with an average of 650'. Core diameter will be BX or equivelent.

## Generalized Rock Sections to be Drilled

### Rotary Drilling

13 holes--shale--thick, carbonaleous, pyritic, fairly water tight shale

7 holes--Approximately 200' of limestone, and the rest is the above shale. Limestone is thick massive bedded.

### Diamond Core Drilling

Approximately 50' of the afore mentioned shale--then approximately 200' of limestone, which is slightly fractured with numerous calcite stringers and fillings. This is the host rock for the ore. Beneath this limestone approximately 35' of rhyolite and slight amounts of quartzite.

The above beds of limestone and shale dip approximately 22°. There is very little or no alluvium.

## Ground Rules

1. All work will be done on a fixed-price-per-foot basis.
2. BX or equivelent diameter core is required--1 5/8" dia.
3. A 90% plus core recovery is required.
4. Rotary drill holes only need to be large enough for the required diamond core drilling (BX core).
5. All drilling will be done on a one (1) shift basis with one (1) drill.
6. The fixed-price-per-foot bid should include the following:
   a. Cost of your company getting the equipment on the drill site. There is a railroad to Oakley.
   b. Furnishing a pipe line and pumps for water and time to install such.
   c. Moves between drill sites. All will be relatively short distances.
   d. Price of bits used in drilling.
   e. Any breakdowns you may anticipate.
   f. Placing core in core boxes at appropriate footages.
7. Another drill or drilling method can be used to do the non-core drilling (percussion, churn, etc.).
8. I will provide the following:
   a. Drill sites, leveling off, etc.
   b. Core boxes
   c. Monitoring of the drilling program
   d. Engineering and geology required
9. The minimum total footage will be 7000'.

If you have any questions, please contact me at:

Work: 297-5911 Ext. 3162

Home: 486-8957

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Denver Federal Center - Building 20
Room 2211
Denver, Colorado 80225

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November 19, 1965

MEMORANDUM

To: Frank Johnson, Chief, OME, Washington, D. C.

From: J. William Hasler, Field Officer, OME, Denver, Colorado

Subject: OME 6452 (Silver)
Vipont Property
Box Elder County, Utah

During a recent field examination of the subject property on November 4, I discussed the possibility of a much less ambitious program to explore for extensions of ore-bearing limestone from the Vipont mine consisting of possible diamond drilling in lieu of extensive underground work. I also asked the applicants to submit the revised cost and bids of a diamond drilling program.

I also attempted to impress upon the applicants that consideration of a possible contract was not a commitment in any way, shape, or form that he would get an OME contract.

Mr. Miller has in his possession an unusual amount of old production records from the Vipont property. He was very gracious in letting us borrow the records long enough to obtain xerox copies of the data. I am sending a set of these copies to you under separate cover as well as a set to Lowell Hilpert, District Geologist, Salt Lake City, Utah, who requested a copy of any old records that could be made available to us.

J. William Hasler

Denver Federal Center
Building 20 - Room 2211
Denver, Colorado

November 19, 1965

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INVESTIGATIONS
120 m
120

Mr. Thomas F. Miller
2112 Westminister Avenue
Salt Lake City, Utah 84108

Re: OME 6452 (Silver)
Vipont Property
[illegible] Utah

I am returning the records on the Vipont mine which you loaned me for the purpose of duplicating them. I trust that I haven't taken too long in getting the job done and wish to express our appreciation for your letting us obtain old production records of the mine.

Sincerely yours,

J. William Hasler

J. William Hasler
Field Officer OME
Region III

JWHasler/mc/11/19/65

cc: Chief OME
6452 file
L. S. Hilpert
Chron

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O. M. E.
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INITIAL CODE
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November 1, 1965

Mr. Thomas F. Miller
2112 Westminister Avenue
Salt Lake City, Utah 84108

Re: OME 6452 (Silver)
Vipont Property
Box Elder County, Utah

Dear Mr. Miller:

We have received the additional information on the Vipont property, Box Elder County, Utah.

I will be in Salt Lake City, Utah on other OME business and could reexamine your property in light of the additional geologic work that you have recently completed.

I will call you Wednesday evening, November 3rd, and make arrangements to visit the property with you or your company representative on Thursday, November 4, 1965.

Sincerely,

J. W. Hasler

J. W. Hasler

J.W.H. - 11-1-65
cc: Chief OME
6452
Chron

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2112 Westminster Avenue
Salt Lake City, Utah
October 25, 1965

Frank E. Johnson
Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

Subject: Amendment to OME-6452
Vipont Property
Box Elder County, Utah

Dear Mr. Johnson:

I have made every effort to get this amendment to you by October 27, 1965, so you and your people would have a chance to review it, and it would be possible for the field officer to review my property before winter sets in. I should think that we should have three weeks to a month of fair weather.

I am enclosing several old mine maps which I would like returned when you are through. I hope they aid you in the evaluation of my property.

My plan is to start drilling in the spring as soon as the weather allows.

My drill plan would be to start and complete the Vipont holes first, then drill either the Midway or M-1, M-2, and M-3 holes next. These holes would prove or disprove my projections. The rest of the holes could be changed to the new projections, if required.

If this program as proposed is successful, I think perhaps a few more should be drilled to fill gaps. One specific target would be to drill one hole to test for structure; location approximately 1500 S, 3000 W area. This hole would be drilled to see if the Mvi exists at this level.

About three (3) holes to be drilled below the Sentinel workings should be drilled in the future. The possibility of hitting ore here is good. Skoro Mining Company drilled two holes (see holes marked in red northeast of the Sullivan Tunnel). They are presently tunneling to these ore zones at depth.

The new map elevations were taken from mean sea level datum and are lower than the old map elevations. All elevations have been changed to agree with the new map.

The 500' grid coordinate system has been added. This is the same grid coordinate as Vipont Silver Mining Company had; it originates at the "A" level tunnel entrance.

Incidentally, I am in a better personal financial position. than I was when I submitted the original application. Also Alan Scoville, a S. L. C. businessman, wants to back me. The latter will not be needed, however.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

Note: Original sent to Washington, D. C.

Copy sent to Denver, Colorado

(letter, amendment proposal, map, and X-sections)

2112 Westminster Avenue
Salt Lake City, Utah
October 25, 1965

OFFICIAL COPY
O. M. E.
RECEIVED
OCT 29 1965
INTL

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

Subject: Amendment to OME-6452

Ref: (a) OME-6452 (Silver)
Vipont Property
Box Elder County, Utah

(b) Letter to Hugh Connors and Frank Johnson from Thomas F. Miller, dated September 14, 1965--Subject, "Notification of amended application to Ref. (a) forthcoming."

(c) Letter to Tom F. Miller from Hugh Connors dated August 17, 1965. Subject, "Suggested amendment to basic OME-6452."

(d) Telephone call from Tom F. Miller to Hugh Connors dated August 18, 1965. Subject, Suggested amendment proposal recommendations.

Dear Sirs:

Since I received Ref. (c), I have remapped the Vipont property and part of the surrounding area in detail. Charles F. Thomas, a geologist with considerable experience, assisted me in this project. We did our mapping on areil photographs 1" = 1000' and then transferred this geology to a blown up photograph 1" = 400'. Rod Nielson took this large photograph, along with sterographic glass plates, and compiled the new topographic and geologic map of the Vipont Mine area by using photogrammetric methods.

In remapping the Vipont Mine property in detail, I strongly feel that some of the conclusions reached by previous geologists are incorrect. We also came up with some new geological interpretations on the genetic relationship of the various formations.

The major differences are that the Vipont and Midway faults are non-existent as portrayed by Peterson. There are indications that the Midway fault did exist on the very most northwest end, as portrayed on my map. We spent considerable time in trying to trace these faults. There was not evidence to sustain their existence. The Mill fault is not a vertical fault, but only the extension of the thrust plane between the Phelan limestone and Wardlaw shale.

The major new interpretation is the two or more major thrust faults.

There is considerable evidence indicating that Sentinel limestone and beds above it were thrust from the southwest at a relatively low angle over the Harrison series. Also that the Phelan limestone was thrust over the Wardlaw shale. Because of the latter, bearings from the Phelan limestone and Wardlaw shale are difficult to get and then to a great extent cannot be trusted for projections when obtained.

As Peterson mentions, there is considerable minor folding or crenulations in the Vipont limestone underground. This was verified in most outcropings of the Vipont limestone. It was also noted that some of the best alteration or gossans were found near these crenulations.

There is also Wardlaw shale west of where the Midway fault was projected. It is a relatively thin section, as can be seen on the new map. It has nearly been thrust out of this area.

The Vipont limestone throughout the area, although considerably fractured and crenulated, is the least affected by the thrusting.

The thrusting accounts for the thinning and thickening of the Wardlaw shale; also the many small numerous faults and slips. As

can be noted on the base map, the Wardlaw shale is completely thrust out on the extreme southeastern part of the major syncline.

There is sufficient evidence that indicates that the granite intrusion occurred after the thrusting and it is believed that the rhyolite intrusive could have followed the Sentinel-Harrison thrust plane in various places.

As was mentioned, there is considerable alteration near the crenulations in the Mvi limestone. This alteration is very noticeable on or near the Mvi-Mw contact from the X-section D-D$^1$ section line to the F-F$^1$ X-section. The Cassius outcrop is in a crenulated area in the Mvi and one can observe the alteration very well here, and for several feet on each side.

Proposed Exploration

In this amendment to basic proposal OME-6452, I have proposed to drill twenty (20) diamond drill holes. Their locations have been delineated on maps and X-sections. The estimated depths of the holes were derived from the projections I made of the Vipont limestone at various depths (at footwall elevation). The projections of the Vipont limestone as seen in the X-sections were made from detailed surface geology and geological information derived from the old mine maps. Mr. Connors told me not to alter my proposal costs (ref. C & D), but just to amend to include proposed holes, locations, and depths, supported by detailed geology. Therefore, I have not altered the basic cost per foot of surface drilling in OME-6452, which was $6.64/ft. However, I do believe the costs will be higher than this due to greater drilling depths.

The amendment is broken into five (5) sections, as follows:

Section A--Vipont Holes

Section B--Midway Holes

Section C--Lexington, Argenta, and Cassius Holes

Section D--Drill sites and analytical work

Section E--Cost

Note The holes have all been located and staked with Brunton and chain. However, before drilling commences, I will have these locations surveyed.

## Section A--Vipont Holes

I have proposed drilling a minimum of six (6) holes to intersect down dip extensions (approximately 800' down dip) of ore shoots known to exist on or below the Phelan Tunnel level (elevation 7135). The specific target is to intersect the Vipont limestone (Mvi) at 6800' at depth.

The Mvi has been projected at an angle of 23° (ref. X-section D-D' and E-E').

### Basis for Projection

I drew a structure contour map (Mvi footwall contact) of the underground working levels of the old mine. From this, the dip of the Mvi was projected for several hundred feet at various intervals. The average dip was 23°. Bearings from the old workings to a great extent agreed with the 23° dip projection.

### Basis for Holes and Hole Plan

(Ref. map showing projected ore rakes.) It can be seen that to intersect these ore shoots, several holes will have to be drilled. The holes will be drilled on a straight line spaced at 100' inter-

vals. If all of the rakes persist, I figure that the probability of intersecting them would be about 40%, or two out of six holes would intersect ore. If this was the case, I would call it successful. I firmly feel that drilling less than six holes would not give adequate information.

Target

The specific target is to drill completely through the Mvi. Twenty-five (25) feet has been added to the projected depths for a safety factor and to insure that the Mvi has been completely drilled. I also believe that one hole should be drilled beyond the Mvi through the Intrusive (if it exists) and through the Sentinel limestone (Ms) to test the Sentinel for ore and structure. The Vipont Silver Mining Company did this once (with a X-cut) at the Phelan level and hit 3 oz. Ag in the Sentinel. However, I have not included the cost for this added drilling, but will do it on my own. The reason that I didn't add the cost is that you may think it is beyond the scope of this program.

Location of Holes

| | |
|---|---|
| Hole No. 1 | 1550' west of "A" level portal 00N-S grid, or 50' west of 00N-S and 1500 W grid corner |
| Holes No. 2,3,4,5, & 6 | Beginning with hole No. 1, these holes are located 100' apart on a straight line that runs N 22° W from Hole No. 1 |

Estimated Drill Hole Depth

The estimated diamond drill hole depths are delineated in X-section V-V'; also see X-sections D-D' and E-E'.

| Hole Number | Estimated Depth |
|---|---|
| 1 | 640' |
| 2 | 660' |
| 3 | 685' |
| 4 | 715' |
| 5 | 745' |
| 6 | 770' |
| Total Footage | 4215' |

## Section B--Midway Holes

I have proposed drilling a minimum of three (3) holes to intersect down dip extensions of ore shoots found at the 7135 level in the Midway Tunnel. The projection is made at an angle of 20°. (Ref. X-section P-P' and N-N') The holes are projected to intersect the Mvi at 6800' (footwall level).

### Basis for Projection

Twenty degrees (20°) was the dip angle of the Mvi in the Midway Tunnel. This information was obtained from an old mine map. This also agrees fairly well with outcrop bearings, although specific outcrop bearings were difficult to obtain on the Mvi above the Midway Tunnel.

### Basis for Holes

There is considerable mineral alteration on the surface in the Mvi above the Midway. Also the good ore they took out of the Midway indicates that good mineralization did carry through NW of the Vipont workings. The possibility of getting ore at this proposed depth, 6800' (Mvi footwall), I feel is good. Also these holes will

help tie down the structure underground better and help gap the area between the Vipont Holes and the Lexington, Argenta, and Cassius holes. The holes will be drilled on a straight line spaced at 100' intervals. Drilling three (3) holes here enhances the probability of hitting ore shoots to that of drilling only one or two holes.

Target

The specific target is to drill completely through the Mvi. Twenty-five (25) feet has been added to the projected depths for a safety factor and to insure that the Mvi has been completely drilled. I also believe that one hole should be drilled beyond the Mvi through the Intrusive (if it exists) and through the Sentinel limestone (Ms) to test the Sentinel for ore and structure. The Vipont Silver Mining Company did this once (with a X-cut) at the Phelan level and hit 3 oz. Ag. in the Sentinel. However, I have not included the cost for this added drilling, but will do it on my own.

Location of Midway Holes

| | |
|---|---|
| Hole No. N-1 | This hole is located 185' due west of grid corner 1500 N and 2500 W |
| Holes N-2 and N-3 | Beginning with Hole No. N-1, these holes are located 100' apart on a straight line that runs 50° W from Hole N-1. |

Estimated Drill Hole Depths

The estimated diamond drill hole depths are delineated in X-

section P-P' and N-N'.

| Hole Number | Estimated Depth |
|---|---|
| N-1 | 575' |
| N-2 | 580' |
| N-3 | 580' |
| Total Footage | 1735' |

## Section C--Lexington, Argenta, and Cassius Holes

The workings are several shafts and tunnels sunk and driven to relatively shallow depths on the Phelan limestone. For the most part, these shafts and adits were driven on a fault vein in the Phelan limestone. This fault, which is near vertical in many of these workings, has no displacement indications on the surface. The fault can easily be traced from X-section G-G' to X-section K-K'. From here it gets harder because of the alluvium, but it shows up in a quartz outcrop in the Wardlaw shale pit at X-section L-L'.

The fault could possibly carry through into the Mvi in these places:

1) The fault 400' northwest of the Cassius outcrop
2) Into a minor fault 60' northwest of the Cassius outcrop. This consists of a fault gouge of Ls and brecciated quartz approximately 10' wide.
3) Or it could possibly carry through to the Cassius outcrop.

I am inclined to think it carried into the latter two possibilities above.

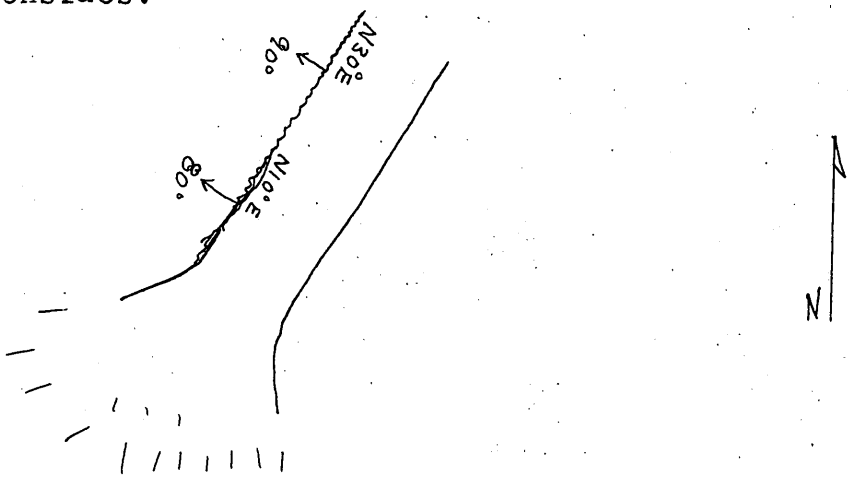
Because of the lack of any major displacement here, and no surface displacement, I think the fault has not had a great amount of displacement. I have estimated a 25' displacement based on this. Some of the drill holes may have to be adjusted if the displacement varies from this projection.

In many places one can observe the gossan vein in the Phelan limestone.

I was able to get good bearings of the fault on the footwall side of the vein. Many of the workings on the Lexington-Argenta workings are accessible for the most part. In them the fault and vein are readily apparent. The vein or altered zone is from 1½ to 5' wide and carries a persistent thickness in the various workings observed. In the past, stoping has been done off the adits and shafts in this vein.

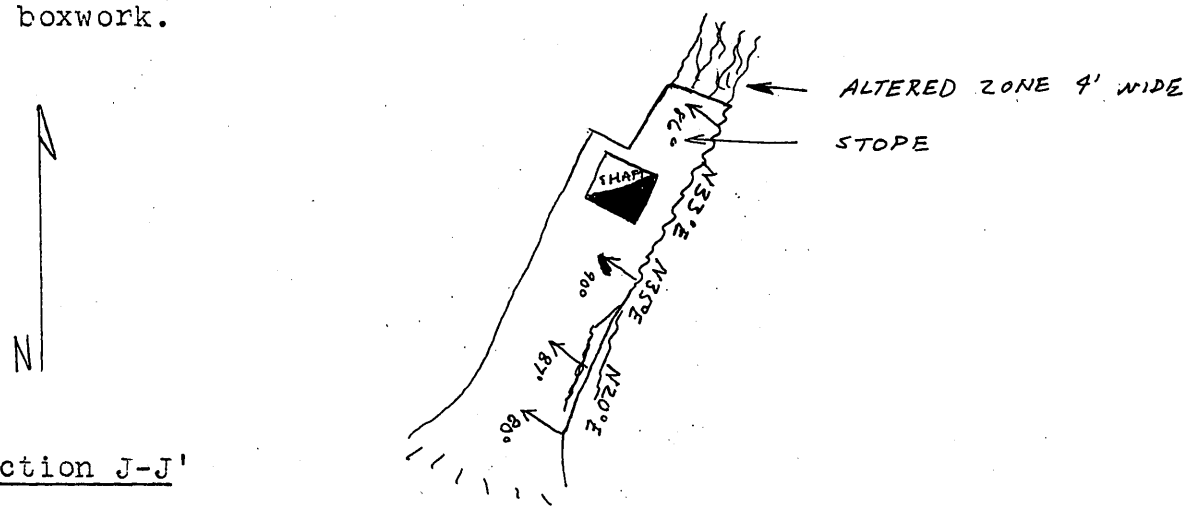
<u>At X-section H-H'</u>

They have drifted on the fault contact. Considerable calcite, gouge and alteration. The fault is not on a straight line, but nearly so. Altered zone approximately 4' wide. Ore appears to have been stoped in pockets in gouged zone. There is no evidence on the surface (in Phelan limestone) of a fault. Excellent near vertical slickensides.



At X-section I-I'

This working is accessible. It consists of a tunnel run in the Phelan limestone on the fault contact. There is the main fault with a series of small faults off from it. At the end of this tunnel, which is about 80' long, there has been a vertical shaft driven that starts from the surface and goes through the tunnel to an apparent depth of not more than 100'. They have stoped out ore along the fault in an altered vein zone that is approximately 4' wide. There is gossan-like material, considerable calcite, and limonite, with good boxwork.




Near X-section J-J'

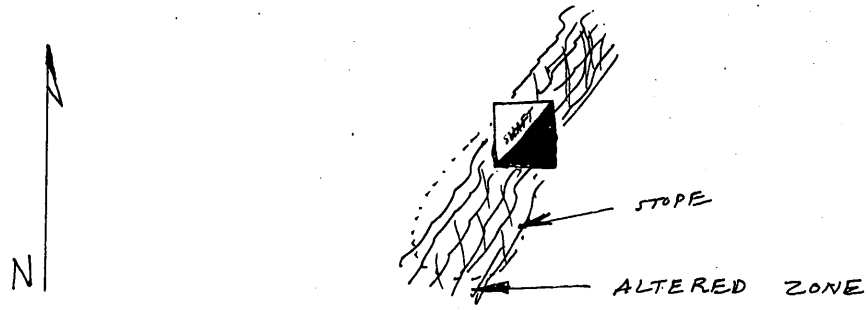
This working is partially accessible. It consists of a vertical shaft approximately 60' deep in the Phelan limestone on the fault. The main fault shows up good here. Bearing N 36° E 80° W. The altered zone is between 3' to 4' wide. Appears to have been some stoping here.

At X-section J-J'

This working is partially accessible. It consists of a vertical shaft driven in the Phelan limestone on the fault. Gouged zone 2' to 3' wide. Bearing on fault N 45° E 86°-87° W.

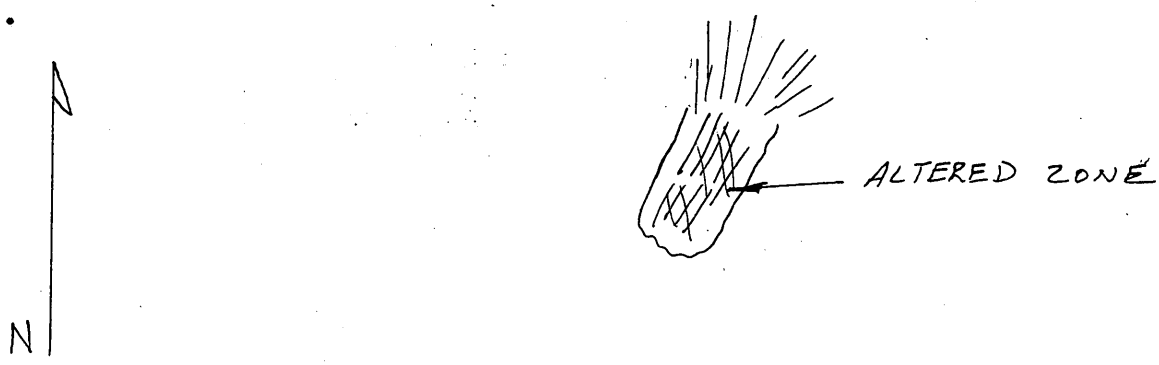
At X-section K-K'

This working consists of a shallow vertical shaft in the Phelan limestone on the fault. There has been some stoping off from this shaft on the fault just below the surface. Bearing on fault N 45° E 86° W. Altered zone is 4' to 5' wide.




Near X-section L-L'

This consists of a prospect trench in the Wardlaw shale. The trench exposes a very good quartz vein on the fault which is approximately 4' wide. I did not have any assays run here, but it appears that this zone would carry some commercial value. This is the only quartz vein of any magnitude that I have seen in the Vipont Mine area.




Summarizing the main fault, it appears that it dips at an average of 86° to the west for a traced distance of approximately 2000'.

I strongly think that the fault could be connected with the apparent fault north of the Cassius outcrop. It could also crop into the Cassius outcrop.

As was mentioned, there is considerable alteration in the Vipont limestone zone at and near the Cassius outcrop. Assays data indicates that the altered zone carried some silver. Area is extremely oxidized.

Conclusions

There is no evidence to indicate that the down dropped side of the fault has been displaced any great distance, although it may have been. The fault appears to have oblique inclined movement.

1) Mineralization along fault
2) Fault was ore channel--vein type
3) Fault Mvi zone at depth could be possibility for good ore
4) Wardlaw shale could be faulted out at depth, which could leave a possibility for a vein to carry from depth.

I have proposed drilling a minimum of eleven holes to test for ore in the Vipont limestone at depth. The specific target depths to intersect the Vipont limestone vary at the various locations.

Basis for Projection of X-section F-F'

The Vipont limestone dips 20° in the Midway Tunnel and dips 19° at the Cassius outcrop. It dips at an angle of 18° approximately 1400' west of the Cassius outcrop. From this, I have concluded that the Cassius dip is fairly reliable and therefore have used it in my projection of the Mvi. It will also be noted that the Mvi dips at a lower angle as it goes west and thickens. The

relatively high angle dips that appear near the Ms-Mvi contact are local and appear only near the footwall side of the Mvi.

Target of Holes

The specific target for holes G-1, H-1, I-1, J-1, K-1, L-1, and M-2 is to drill vertical holes to intersect the Mvi--and fault--at depth, and then drill through the Mvi.

Holes M-1, M-3, G-2, and H-2 test the Mvi for lateral extensions of possible ore zones. As is the case in many base metal mine ore has come up the fault and then gone out laterally on the up thrown block. The above holes test for this possibility, along with enhancing the possibilities of intersecting ore shoots.

Location of Lexington, Argenta, and Cassius Holes

| | |
|---|---|
| Hole M-3 | This hole is located 50' due north of grid corner 2500 N & 3500 W. |
| Holes M-2 & M-1 | Beginning with Hole M-3, these holes are located 100' apart on a straight line that runs N 46° W from Hole M-3. Hole M-2 is 20' N 45° W of the pit which is on the fault. |
| Hole L-1 | This hole is located at 2460 N & 3770 W on the grid. It is also located 25' N 45° W of the fault. |
| Hole K-1 | This hole is located at 2135 N and 4225 W on the grid. This hole is also located 50' NW of the fault, which is located in a shaft. |
| Hole J-1 | This hole is located at 2060 N and 4290 W on the grid. This hole is |

also located 52' NW of the fault, which is located in a tunnel and a shaft.

Hole I-1 — This hole is located at 1745 N and 4620 W on the grid. This hole is also located 50' NW of the fault, which is located in a tunnel.

Hole H-2 — This hole is located at 1245 N and 4830 W on the grid.

Hole H-1 — This hole is located at 1315 N and 4910 W on the grid. This hole is 100' N 47° W from Hole H-2. This hole is also located 45' NW of the fault, which is located in a tunnel.

Hole G-2 — This hole is located at 970 N and 5115 W on the grid. This hole is also located 1115 N 33 E from M.M. No. 1.

Hole G-1 — This hole is located at 1040 N and 5185 W on the grid. This hole is also located 100' N 47° W from hole G-2. This hole is also located 50' from the fault.

Estimated drill holes depths are delineated in X-sections G-G', H-H', I-I', J-J', K-K', L-L', and M-M'.

| Hole Number | Estimated Depth |
|---|---|
| G-1 | 675' |
| G-2 | 680' |
| H-1 | 705' |

| Hole Number (cont.) | Estimated Depths (cont.) |
|---|---|
| H-2 | 670' |
| I-1 | 795' |
| J-1 | 835' |
| K-1 | 795' |
| L-1 | 550' |
| M-1 | 385' |
| M-2 | 375' |
| M-3 | 395' |
| Total Footage | 6860' |

## Section D--Drill Sites and Analytical Work

Drill sites and minor roads to sites

50 hours of cat work at $10/hr.* $500

Analytical Work

20 holes x 10 assays per hole average. It could possibly take more, at $3 per assay**

3 x 20 x 10 = $600

*Ref. OME 6452 bid on cat cost per hour

**Black and Deason have raised their assay charge to $3 each since OME-6452 was originally submitted. All places in S.L.C. charge a minimum of $3 each.

## Section E--Cost

| | | |
|---|---|---|
| **Vipont Holes** | | |
| Total Footage | 4215 x $6.64/ft | $27,987.60 |
| **Midway Holes** | | |
| Total Footage | 1735 x $6.64/ft | 11,520.40 |
| **Lexington, Argenta, and Cassius Holes** | | |
| Total Footage | 6860 x $6.64/ft | 45,550.40 |
| **Cat Work** | | |
| | 50 hrs. x $10/h4 | 500.00 |
| **Analytical Work** | | |
| 20 holes x 10 assays per hole x $3/ea | | 600.00 |
| | | $86,158.40 |

2112 Westminster Avenue
Salt Lake City, Utah 84108
September 14, 1965

Hugh M. Connors
Department of the Interior
Office of Minerals Exploration
Building 20--Denver Federal Center
Denver, Colorado 80225

Dear Mr. Connors:

Re: OME #6452 (Silver) Vipont Property, Box Elder County, Utah

I am writing in regards to your letter of August 17, 1965. Please be advised that I am going to amend my application to include a drilling project on the Lexington, Argenta, and Cassius outcrops. I am also projecting some holes 800' down dip from the Phelan level. ?

I have employed one good geologist to assist me in remapping the area, as I feel that there are some significant errors in the original maps. I am also getting topographic control from Aero Service, Salt Lake; contour interval will be 10'. This, along with more accurate and detailed geology, will enable me to make good projections.

I am hopeful of resubmitting by October 31 so a possible field review by you can be made before winter sets in.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

Copy to Frank E. Johnson
Acting Director
Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

ME Form 7
(2/63)

ME

OFFICIAL FILE COPY

| Date | Surname | Code |
|---|---|---|
| 9/1/65 | Kiberno | |
| | Selfridge | |
| 9/2 | Kilsgaard | |
| 9/2 | Tooker | |
| 9/3 | Nelson | |
| | | |
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| | | |
| | | |

SEP 3 - 1965

Hon. Mike Mansfield
United States Senate
Washington, D. C. 20510

Dear Senator Mansfield:

We have your letter of August 24, 1965, to Mr. George Fumich, Jr. concerning a letter to you of August 20 from Mr. James H. Miller of Garrison, Montana, and requesting a report on the application for exploration assistance of Mr. Miller's son, Thomas F. Miller.

Mr. Thomas F. Miller proposed to explore for possible down dip extensions of mined-out ore bodies by driving a new tunnel some 2,700 feet and drilling a few random surface holes without specific geologic targets. A field examination of the property was made on July 8, 1965, by our Field Officer. Unfortunately, none of the mine workings were accessible for examination.

All available information, however, indicates that Government participation in the project as proposed is not warranted. In a phone call August 13 we suggested to Mr. Miller that he discuss with the Field Officer the possibility of exploring another area on the property after first mapping the geology and revising his original application.

If Mr. Miller submits a revised application supported by detailed geology as suggested to him by the Field Officer in a letter dated August 17, 1965, we shall be glad to give it careful consideration.

Each application is considered on its own merits and whether or not it meets the criteria of the OME Regulations. You may be assured that Mr. Miller's application was considered on the same basis.

In accordance with your request, Mr. Miller's letter is returned.

FEJohnson/bih 9/1/65
Sincerely yours,

Enclosure

cc to General Files
Division file
Director's chron.
Economic Geology file
OME file (OME-6452)
OME reading file
OME Region III w/cy in. ltr.
OME Mr. Selfridge

Arthur A. Baker
Acting Director

166883

23263

United States Senate

[illegible] Majority Leader

Washington D.C.

August 24, 1965

Postmarked 8/27

Mr. George Fumich, Jr.
Director
Office of Minerals Exploration
Department of the Interior
Washington, D. C.

Dear Mr. Fumich:

Enclosed is a letter I have received from James H. Miller, of Garrison, Montana, concerning his son, Thomas F. Miller, whose OME exploration proposal No. [redacted] was recently rejected.

In view of this letter, I would appreciate your giving me a detailed report as to the reason that Mr. Miller's application for exploration of silver properties was rejected.

Thank you for this information, and please return the enclosure with your reply.

With best personal wishes, I am

Sincerely yours,

Enclosure

Garrison, Montana
August 20, 1965

Honorable Senator Mike Mansfield
Senate Building
Washington, D. C.

Dear Senator Mansfield:

Ref: OME Proposal # 6542 for silver

I am writing you this letter in regards to an Office of Mineral Exploration proposal (No. 654[illegible]). This proposal is for exploration work at the Vipont Silver Mine, which is situated in Box Elder County, Northwestern Utah.

This proposal was submitted by my son, Thomas F. Miller, who is a graduate geologist, and who is presently employed at Hercules Powder Company in Salt Lake City, as an engineer in contracts and proposals. He has had, besides his degree, three years experience in field work under Dr. L. V. Bell of Montana Phosphate Products Company, and about four summers underground miner while attending school. His character has always been above reproach, so I feel that he is very well qualified.

The Vipont Mine has produced over five million ounces of silver in four years that it ran between 1919 and 1923, when it was closed after the enactment of the Pittman Silver Act. It was the fourth largest producer in Utah in 1[illegible], at which time Utah was the leading silver producer in the nation. At present it is the best prospect for silver in the state. There have been recent assays showing 342 ounces of silver per ton.

The Vipont lease, for a term of fifteen years, was secured by my son last year. No one has been able to lease this property before, although Anaconda, Kenecott, and Vitro Chemical, among others, were after the lease.

My son submitted a proposal to the OME office around the middle of May. This proposal was classified by Mr. Hugh Connors of the OME office in Denver, where he is the head man, as the best proposal he has ever seen in his fifteen years as head of the department. Yet Tom has been turned down on most of his proposal, and given little encouragement on the rest of it.

My question to you, Mr. Mansfield, is: Is the OME designed to help the small prospector, or is it a tool of the big corporation? Was pressure put on by an outside source to have this proposal rejected?

I would appre[illegible] it a little. I feel that this [illegible] is to [illegible], and if there is a sincere desire [illegible] solve the silver situation, these well [illegible] honest and ambitious [illegible].

I should like [illegible] both you and Senator Metcalf. Continue in your good work.

Very [illegible],

[illegible]

MME Form 7
(2/63)

OME OFFICIAL FILE COPY

| Date | Surname | Code |
|---|---|---|
| 9/1/65 | Kirkpatrick | |
| | [illegible] | |
| 9/2 | Kilgore | |
| 9/2 | Tooker | |
| 9/3 | Upper | |
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SEP 3 - 1965

Hon. Lee Metcalf
United States Senate
Washington, D. C. 20510

Dear Senator Metcalf:

This is with reference to your memorandum of August 24, 1965, to Secretary Udall, enclosing a letter to you of August 20 from Mr. James H. Miller of Garrison, Montana, concerning the application for exploration assistance of his son, Thomas F. Miller.

Mr. Miller proposed driving a 2,700-foot tunnel to explore for possible down dip extensions of mined-out ore bodies, and to drill several random holes from the surface without specific geologic targets. A field examination of the property by our Field Officer on July 8, 1965, revealed that all of the mine workings were inaccessible.

All available information, however, indicates that Government participation in the project as proposed is not warranted. In a phone call August 13 we suggested to Mr. Miller that he discuss with the Field Officer the possibility of exploring another area on the property after first mapping the geology and revising his original application.

If Mr. Miller submits a revised application, supported by detailed geology, as suggested to him by the Field Officer in a letter dated August 17, 1965, we shall be glad to give it our careful consideration.

You may be assured that this application was given the same careful consideration as all applications are given based upon the criteria in the OME Regulations and the merits of the individual case.

In accordance with your request Mr. Miller's letter is returned.

FEJohnson/bih 9/1/65
cc to: General files
Division file
Director's chron.
Economic Geology file
OME file (OME-6652)
OME reading file
OME Region III w/cy inc. ltr.

Sincerely yours,

Arthur A. Baker

Acting Director

Enclosure OME Mr. Selfridge

S-4824
166856

23263

COPY

Garrison, Montana
August 20, 1965

Senator Lee Metcalf
Building
Washington, D. C.

Senator Metcalf:

Ref: OME Proposal #5[illegible] for silver

May my son, Thomas F. Miller, submitted a proposal to office for exploration work at the Vipont Silver Mine, located in Box Elder County, Northwestern Utah, and at least in part. This rejection causes me to about OME. Is it designed to help the small prospector, it a tool of the big corporation? Or is it controlled outside pressure?

The Vipont lease, which my son has for a fifteen year was sought after by many companies and individuals, including Anaconda, Kennecott, and Nitro Chemical.

The Vipont [illegible] of silver in four years of [illegible] was closed [illegible] enactment of the Pittman Silver [illegible] it was the largest producer in Utah [illegible] time [illegible] the nation in silver product[illegible] at present, it is the best silver prospect in Utah.

My son is [illegible] in [illegible]. He worked as an underground miner for four summers while attending college, and worked under Dr. L. V. Bell in geology for three years for [illegible] Phosphate Products Company. He is presently employed by Hercules Powder Company in Salt Lake City as an [illegible] in contracts and proposals. He has been with them [illegible] years.

[illegible] there is a sincere desire on the part of the government [illegible] solve the silver situation, I feel that these well-[illegible] and qualified young men who are ambitious enough to [illegible] their own are the men who will do it.

. . .

Sincerely yours,

Signed - James G. Miller

MME Form 7
(2/63)

OFFICIAL FILE COPY

| Date | Surname | Code |
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| 9/2 | Johnson | 110 |
| | | 420 |
| " | Kirkham | 120 K |
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| 9/2 | CAC | 220 |
| | | 120 M |
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SEP 2 1965

Memorandum

To: Files

From: Chief - OME

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

Mr. Thomas Miller telephoned me at 10 AM on August 13 concerning the application to explore the Vipont Property in Utah. He said he had not heard anything since the property was examined by Mr. Connors on July 8 and was inquiring about the status of his application.

I explained the situation to him and advised that the proposed long tunnel was not justified by available information. I added that possibly a surface drilling program along the west rim of the syncline might be considered if he could furnish geological data to support such a program. I told him the property needed more geologic mapping and that Mr. Connors was supposed to contact him regarding his application. He said Mr. Connors had not talked to him about revising the application. He advised that he would check with Mr. Connors and that we would be hearing from him.

On August 17 Mr. Connors telephoned at 9:50 AM regarding the application of Mr. Miller. I explained to him regarding a possible revised drilling program as suggested in our field referral letter of May 28 and my discussion with Mr. Miller. I asked if he had discussed it with Mr. Miller in accordance with our letter of August 6. He said notbut he would get in touch with him.

FEJohnson/bih 9/2/65
cc to: Director's reading file
Division file
Economic Geology file
OME file
OME reading file

Frank E. Johnson

Frank E. Johnson

23263

Bldg. 20 - Denver Federal Center
Denver, Colo. 80225
GEOLOGICAL SURVEY

August 17, 1965

AIR MAIL

Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

Re: OME-6452 (Silver)
Vipont Property
Box Elder County, Utah

Dear Mr. Miller:

I have tried many times the last two days to contact you by FTS but always get the busy signal at BY7-5911.

I am wondering if you would be interested in amending your application for a small drilling project. This might consist of possibly drilling a few holes on the west limb of the syncline to be based on more detailed geology of the area which includes the Lexington, Argenta, and Cassins prospects.

If such an exploration project appeals to you I suggest that you obtain the detailed geology of this area and submit it, together with a map showing the locations and estimated depth of the proposed holes.

Nothing in the foregoing is to be construed as a commitment by the Government to grant an exploration contract.

Yours very truly,

ORIGINAL SIGNED BY
Hugh M. Connors
Acting Field Officer, OME
Region III

HMC (8-17-65)
cc: Chief, OME
6452
Chron

MME Form 7
(2/63)

OFFICIAL FILE COPY

| Date | Surname | Code |
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| 8/6/65 | Kirkemo | 120 |
| | Selfridge | 130 |
| 8/6 | Johnson | 110 |
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AUG 6 1965

AIRMAIL

Memorandum

To: Acting Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

Your on-site examination report on the Vipont property leaves several important questions unanswered.

You do not mention whether you examined the west limb of the syncline--the area which includes the Lexington, Argenta, and possibly Cassius prospects--and, if so, whether you discussed with Mr. Miller a possible exploration project there. We agree that the Applicant's original proposal is too large for his operating and financial resources, but he might be able to handle a smaller program if the area mentioned above merits exploration.

Did you review and abstract any of the original geologic and assay information which Mr. Miller mentioned in his letter of May 17, 1965, was available for review? We hope you did because it would be useful to anyone making a future study of the deposit, and the opportunity to examine these records may not be offered again.

We will withhold a denial letter on the application until we know that all possibilities for a project have been considered and discussed with the Applicant.

(signed) FRANK E. JOHNSON

Frank E. Johnson

HKirkemo/mm (8/6/65)
cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Kirkemo
Mr. Selfridge

23263

OFFICIAL
COPY
O. M. E.
RECEIVED
AUG 6 1965
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120 m
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2112 Westminster Avenue
Salt Lake City, Utah 84108
August 1, 1965

George Selfridge
Office of Minerals Exploration
Washington 25, D. C.

Re: OME - 6452 (Silver)
Vipont Property
Box Elder County, Utah

Dear Mr. Selfridge:

Would you please advise me of the present status of the above referenced proposal. I would appreciate hearing from you.

Sincerely yours,

Thomas F. Miller

Thomas F. Miller

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Bldg. 20, Denver Federal Center
Denver, Colo. 80225
GEOLOGICAL SURVEY

July 20, 1965

OFFICIAL COPY
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JUL 21 1965
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130 K

Memorandum

To: Chief, Division of Exploration Operations

From: Acting Field Officer, Region III

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah
Report of Field Examination

On May 18, 1965, Thomas F. Miller, 2112 Westminster Avenue, Salt Lake City, Utah, applied for OME assistance in exploring the Vipont property in Box Elder County, Utah for silver. The Applicant's proposed project consisted of driving a new adit, underground diamond core drilling, surface diamond core drilling, and detailed geological work at a total estimated cost of $327,832.00. Government participation at 75 percent would be $245,874.00.

The property was visited on July 8, 1965, in company with Thomas F. Miller, the Applicant.

The proposed exploration target is the area down dip from the worked out ore bodies in the Phelan Tunnel. The Vipont mine has produced about 3,000,000 ounces of silver from ore averaging about 17 ounces of silver per ton. Most of this ore occurred in a small area 1,600 feet long and 1,000 feet wide as replacement deposits in the upper part of the Vipont limestone.

All of the old adits were driven in the Wardlaw shale. The portals are caved tight and from observation I believe the old workings are completely caved.

FIELD EXAM. REPT.

The Applicant stated that he is a graduate of Brigham Young University, Class of 1961. Since that time he has worked four years for Hercules Powder Company in Salt Lake City. He has no money to carry on this kind of mining venture and would not part with enough interest to make the project attractive to venture capital. His mining experience is extremely limited.

The property may have some merit and a geologic mapping program should be a prerequisite on which to base an exploration program. The Applicant's proposed exploration is not justified by the geological information we now have.

I recommend that the application be denied without prejudice.

Hugh M. Connors

Hugh M. Connors

Bldg. 20, Denver Federal Center
Denver, Colo. 80225

June 29, 1965

Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

Re: OME-6452 (Silver)
Vipont Property
Box Elder County, Utah

Dear Mr. Miller:

I would like to schedule a field examination of your property for July 8 or 9, 1965. I have two other examinations to make in Utah and I plan to register at the Newhouse Hotel.

Will you please advise if you or your representative can accompany me to the property on either July 8 or July 9. On my return to Salt Lake City the evening of July 6 I should know definitely the date I can meet you. Please call the Newhouse Hotel and leave a message where I can call you.

Yours very truly,

Hugh M. Connors
Acting Field Officer, OME
Region III

H.M.C. (6-29-65)
cc: G. C. Selfridge
6452
Chron

MME Form 7
(2/63)

OFFICIAL FILE COPY

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| 5/28 | GCL | 130 |
| 5/28 | Johnson | 110 |
| | Jon Leone | 100 |
| | | 120N |
| 5/28 | Cole | 220 |
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MAY 28 1965

Memorandum

To: Acting Field Officer, Region III

From: Chief, Division of Exploration Operations

Subject: OMZ-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

The subject application is referred to Region III for on-site examination and recommendations. Enclosed are two copies of a memorandum by Harold Kirkeme regarding the proposed project.

Probably the first thing that should be done would be a review of the original material in the hands of Mr. Miller, as mentioned in his letter of May 17, 1965. For future reference if nothing more, information relating to the deepest mined ore bodies regarding assays and geology should be abstracted. It would be interesting to have a northwest-southeast cross section approximately along the structural contour 7200 as shown on the big map, if such information is available.

The levels west of A-level tunnel reflect structure as mentioned on Page 11 of Section 3 of the application. The map suggests that the ore occurs on the limbs of a minor syncline within the larger syncline and that there is a northerly change in strike from that used to drive the Phelan tunnel.

The drift from the proposed new tunnel might be all that would intersect the ore at depth if it extends downdip that far. The proposed underground holes in the crosscut section of the new tunnel could be too far to the southeast to do any good. As mentioned by Mr. Kirkeme, a hole or two should be drilled from the surface to test the area at depth before any other type of work should be done.

In analyzing the production and the nature of the ore bodies, there is serious doubt that any new long adit is warranted at this time.

23263

As pointed out by Mr. Kirkemo, exploration work on the other limb of the syncline might find something of value. In connection with drilling, consideration should be given to combination rotary or down-the-hole percussion drilling and coring. Some types of these drills can equal or better 200 feet per 10-hour drill shift. It would appear that coring would only be needed in the Vipont limestone. Costs would be considerably less than for core drilling the holes. If fractures or alteration zones can be identified in the area over the caved Midway tunnel, possibly a few holes might be warranted in that area.

As you will note, the project is entirely a family affair and costs are high.

George C. Selfridge (gla)

Enclosures

GCSelfridge/mm (5/27/65)
cc: Director's Reading File
Review Committee
Docket
Mr. Selfridge

MME Form 7
(2/63)

OFFICIAL FILE COPY

| Date | Surname | Code |
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| 5/28 | Selfridge | 130 |
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MAY 28 1965

Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

Re: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

Dear Mr. Miller:

The application for assistance in exploring the subject property has been reviewed by the Division of Exploration Operations of the Office of Minerals Exploration and referred to Mr. H. M. Cemmers, Acting Field Officer, Office of Minerals Exploration, Region III, Building 20, Federal Center, Denver, Colorado, 80225.

The Regional Office will notify you in case additional information concerning the application is needed.

Sincerely yours,

(signed) FRANK E. JOHNSON
Acting Director

MMerrithew/mm
5/27/65
cc: Director's Reading File
Region III
Docket

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

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May 27, 1965

Memorandum

To: Chief, Division of Exploration Operations

From: Harold Kirkemo

Subject: OME-6452 (Silver)
Thomas F. Miller
Vipont Property
Box Elder County, Utah

This is a detailed, carefully prepared application for a $327,000 exploration project that is neither practical nor feasible under the proposed scheme of operation, and with the present knowledge of the deposits. Geologic mapping should precede and guide the exploration, and more secure financial arrangements are required.

The principal target is silver-bearing ore in the vicinity of the old Vipont mine. Recorded production from the Ashbrook district is about 3,422,000 ounces silver and 7,750 ounces gold of which the Vipont mine accounted for over 95 percent. This production was from ore averaging about 17.2 ounces silver, and 0.04 ounces gold per ton. A few individual ore bodies, however, contained material assaying as much as 10,000 ounces silver and 4 to 5 ounces gold per ton. Plan outlines of stopes yielding the bulk of the ore are within an area about 1,600 feet long and 1,000 feet wide. These show irregular, lenticular, replacement deposits trending in a southwesterly direction in the upper part of the Vipont limestone formation (Mississippian age?) near its contact with the overlying Wardlaw shale formation. A rhyolite sill underlies the ore-bearing limestone. Other limestone formations in the district also are mineralized. The ore bodies are commonly parallel to the bedding planes of the limestone in or near crests of minor folds in a broad synclinal structure which plunges about 20 degrees to the southwest. Pipelike, vertical, stringer stockworks of vein material were encountered under some of the tabular ore bodies.

The most important ore minerals are argentite, native silver, and pyrargyrite in a quartz gangue. Minor constituents are rhodochrosite, sphalerite, galena, chalcopyrite, calcite, and various iron

minerals. Oxidation and enrichment produced many secondary minerals. The enriched ores are economically the most important.

The geology of the Vipont mine area is not well known, and additional mapping is essential before underground exploration is undertaken. The fundamental control for the ore bodies is believed to be related to the underlying basement rocks. It is known, however, that the area is part of a large thrust plate. The sole of the thrust is exposed to the east, and it probably underlies the rhyolite sill in the footwall of the ore-bearing limestone. The Wardlaw shale may be a shear zone in the thrust plate system. Because the sole of the thrust plate has an undulating surface, overlying formations may be unpredictably truncated or eliminated. This possibility makes it risky to project exploration targets over long distances. If the Wardlaw shale is a mylonitized zone, this would help account for the bad ground conditions encountered by underground workings driven into it. Extensive timbering is required to maintain mine workings in the extremely heavy and swelling ground.

The Applicant proposes a project costing $327,832 of which 49 percent would be spent for 2,700 feet of crosscut and drift, 21 percent for surface diamond drilling, 21 percent for underground diamond drilling, and about 8 percent for geologic mapping which is to be conducted concurrently with the exploration work.

A 1,725-foot crosscut is proposed through the Wardlaw shale and into the target area in Vipont limestone about 900 feet southwest of the Vipont mine. A drift 950 feet long would be driven northwestward in the limestone to test possibilities for ore bodies extending southwest from the Vipont mine. This work would be undertaken without first testing the target area for the presence of limestone. Surface drill holes 700 to 800 feet deep should be drilled into the target area before proceding with the expensive underground work. Chances of encountering ore in the drilling are about 1 in 10 considering the density of stopes in the entire stoped area of the mine.

The Applicant's surface diamond drilling program seems to be a random sampling of the claim group without specific geologic purpose. Hole spacing is too wide to adequately test for ore bodies of the size and orientation shown by the general plan map of the mine.

The proposed geologic mapping program should precede any exploration effort here. The Applicant proposes doing all of the geologic work and at the same time to supervise the exploration work. The geologic work requires the full attention of the Applicant, and the results of it should guide the exploration program. At least a field season would be needed to complete an adequate geologic field job. The expense of geologic studies can be applied toward the lease commitment for $20,000 worth of work on the claim group in the first year.

The financial arrangements for the proposal are insecure. About $50,000 cash would be required in the first month to meet equipment and supply expenses, and to satisfy labor obligations. The latter, however, are to be paid largely with shares in the venture. The Applicant lists only $16,000 in cash assets. Other sources of funds are the future earnings of his wife, possible loans from banks and relatives, and possible credit from equipment and supply firms.

There are many discrepancies between the mineral survey plat of the claim group, the text of the application, the lease, and the claim maps. These would have to be corrected before a contract could be written.

It is obvious from these comments that the proposal as presented is neither practical nor feasible. Perhaps a more modest program within the Applicant's financial means is worth considering.

According to the structure contours shown on the Applicant's general map, the Vipont mine workings are on the east limb of a broad syncline. Shallow workings labelled Lexington, Argenta, and possibly Cassius are scattered along the probable west limb of this syncline. The concentration of workings on the limbs suggests that exploration in favorable areas on the west limb may be worthwhile. The Applicant proposes drilling 10 holes totalling 1,911 feet in the area of the western workings without offering geologic justification. Perhaps there are geologic indications on the surface and in accessible workings that could be mapped which would serve as guides for a modest program of drilling.

The Lexington and Argenta workings are in the Phelan limestone (Permian-Pennsylvania age). Mineralization appears to be scattered

and may not warrant further exploration. The depth of the Applicant's proposed holes in this area suggests that his main target is the underlying Vipont limestone. Hole No. 3, which is proposed for a depth of 500 feet, may be intended to test the underlying Sentinel limestone. Until the Applicant demonstrates that he has the experience and equipment to conduct an acceptable drilling program, drilling for targets below depths of 200-300 feet should not be planned.

A field examination could evaluate the plausibility of these comments and suggestions.

Harold Kirkemo

Harold Kirkemo

HKirkemo/mm
cc: Director's Reading File
Region III (2)
Docket
Mr. Kirkemo

Retain with docket:

Claim maps and text do not agree in the following instances & need corrections as indicated:

| Plat ~~Mineral Survey No. 5078~~ Mineral Survey No. 5078 | claim map scale: 1"=400' | claim map insert on large map | Text |
|---|---|---|---|
| | | | insert No.'s for Dugway, Southern, Northern, Catherine, Contact & Mine Park. claims. insert Mine after Contact |
| | | shows Northern No. 6 | lists Northern No. 6. but no such claim on plat or small claim map. |
| | | Insert Mine No.'s after Contact | Insert Mine No.'s after Contact |
| | | | Delete 1 after West End |
| | | Correct to read Sentinell Mine No. 2 instead of Sentinal No. 2 | Correct to read Sentinell Mine No. 2 instead of Sentinal No. 2, 1. |

Is it necessary to determine whether millsites in question are patented?

Does Sentinel No. 2 in Mine Lease mean Sentinell Mine No. 2 as on plat?

Does Contact No.'s 1-3 in Mine Lease mean Contact Mine No.'s 1-3?

Comma after Poorman in Mine lease?

May 20, 1965

Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

Subject: OME - 6452

Dear Mr. Miller:

Your application for exploration assistance, dated May 18, 1965 submitted to our office at Washington, D. C. has been assigned Docket Number OME - 6452.

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

Sincerely yours,

George C. Selfridge, Chief
Division of Exploration
Operations

Copy to Region III
Operator sent Region copy
of application direct

Bldg. 20, Denver Federal Center
Denver, Colo. 80225

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 20 1965

| INITIALS | CODE |
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| | 120 |
| | 120 |

6452

May 19, 1965

Mr. Thomas F. Miller
2112 Westminster Avenue
Salt Lake City, Utah 84108

Re: Application for OME aid (Silver)
Vipont Mine
Boxelder County, Utah

Dear Mr. Miller:

This will acknowledge receipt of one copy of the captioned application in the amount of $327,832.00.

No letter accompanied my copy of the application and I am wondering if you forwarded the original to the Washington Office OME. Will you please advise because I must have a copy and the Washington Office must have the original.

Yours very truly,

Hugh M. Connors
Acting Field Officer, OME
Region III

H.M.C. (5-19-65)
cc: G. C. Selfridge
File
Chron

OME- 6452

**INSTRUCTIONS FOR USE**

1. Identify Agency of Addressee
2. Void Previously Used Blank
3. Write Clearly
4. Send Surplus Envelopes to Supply Room for Reissue

| EE, AGENCY, ORGANIZATIONAL UNIT, S, AND ROOM | | NAME (OR TITLE) OF ADDRESSEE, AGENCY, ORGANIZATIONAL UNIT, ADDRESS, AND ROOM | |
|---|---|---|---|
| | STOP | | STOP |
| | STOP | | STOP |
| | STOP | | STOP |
| | STOP | | STOP |
| | STOP | | STOP |
| | STOP | | STOP |
| | STOP | | STOP |
| | STOP | | STOP |
| | STOP | | STOP |

Use other side first

# U. S. Government Messenger Envelope

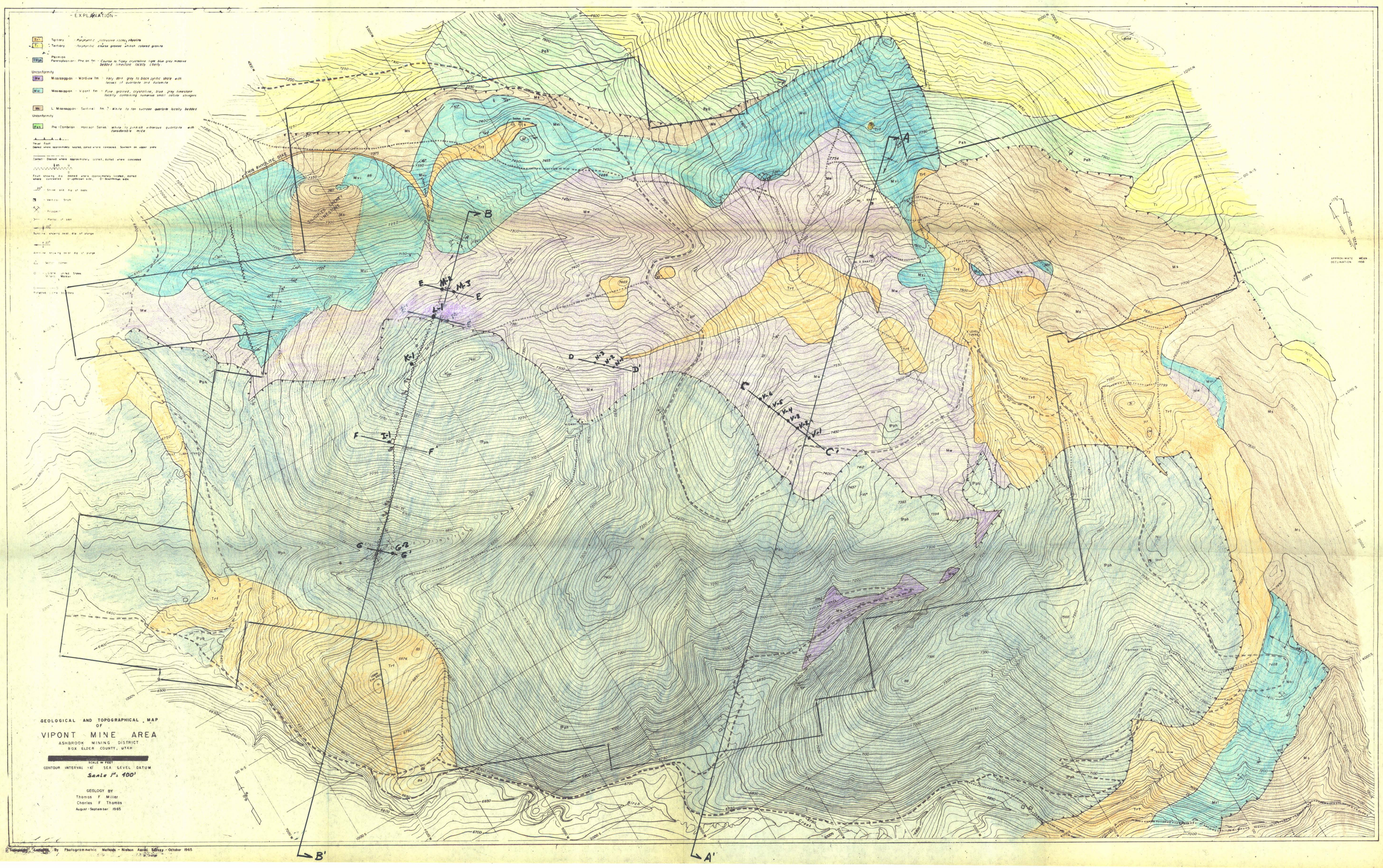
Standard Form No. 65 Rev. (1957)

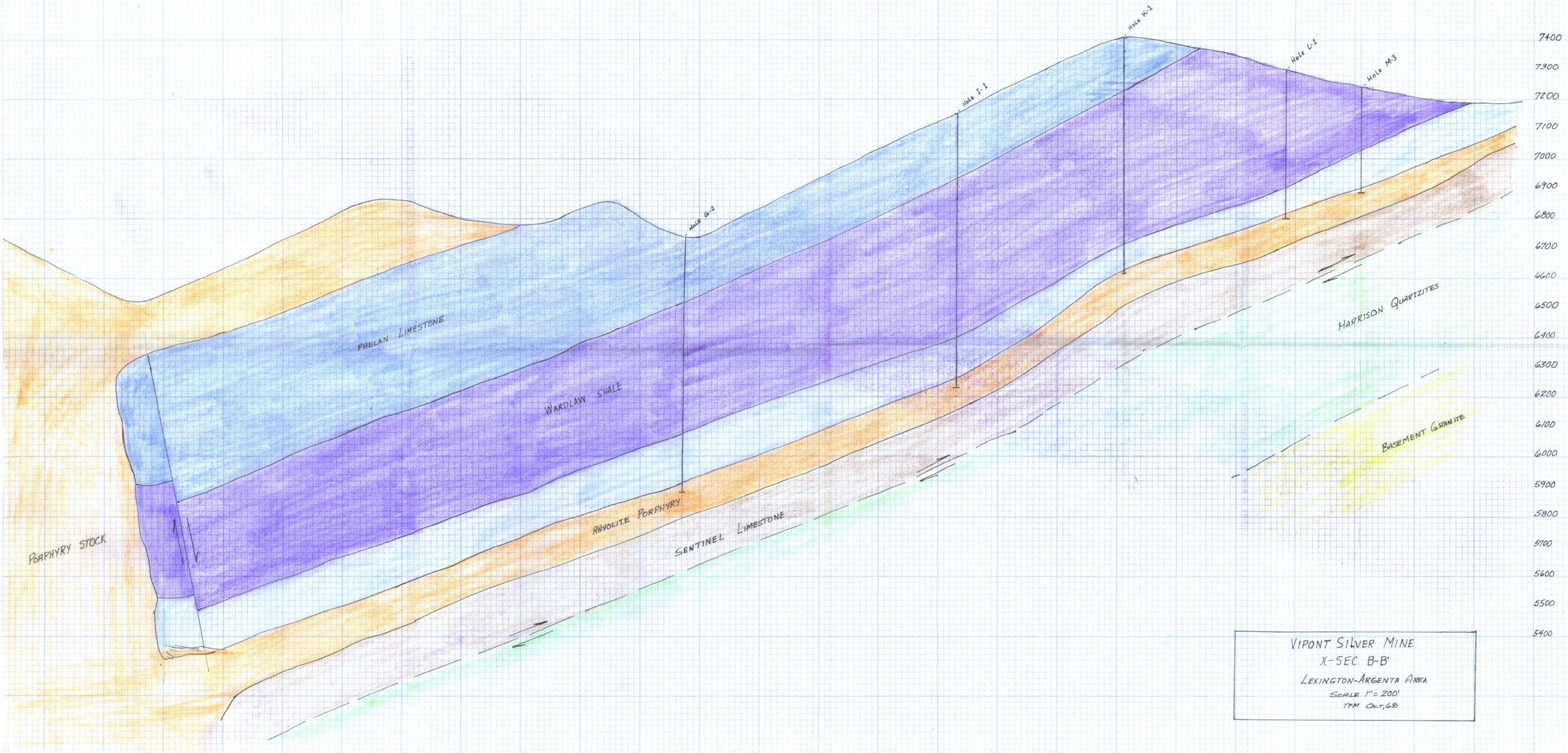
Promulgated by Bureau of the Budget Circular A-33 (Rev.)

| NAME (OR TITLE) OF ADDRESSEE, AGENCY, ORGANIZATIONAL UNIT, ADDRESS, AND ROOM | | NAME (OR TITLE) OF ADDRESSEE, AGENCY, ORGANIZATIONAL UNIT, ADDRESS, AND ROOM | |
|---|---|---|---|
| RES | STOP | [illegible] NS | |
| [illegible] | STOP | [illegible] | STOP |
| [illegible] | STOP | Geo. Taylor, Rm S-230 Arlington Towers | STOP |
| M [illegible] | STOP | Virginia Blvd Rm 307 AT | |
| [illegible] | STOP | Billy Black Rm 321 AT | |
| L. Elderdice [illegible] | STOP | [illegible] Bryan 324 AT | |
| [illegible] | STOP | [illegible] | STOP |
| Mar [illegible] | STOP | [illegible] | STOP |
| [illegible] | STOP | Mr. Bradley - 4218 DSA | STOP |
| | STOP | 4234 DSA | STOP |

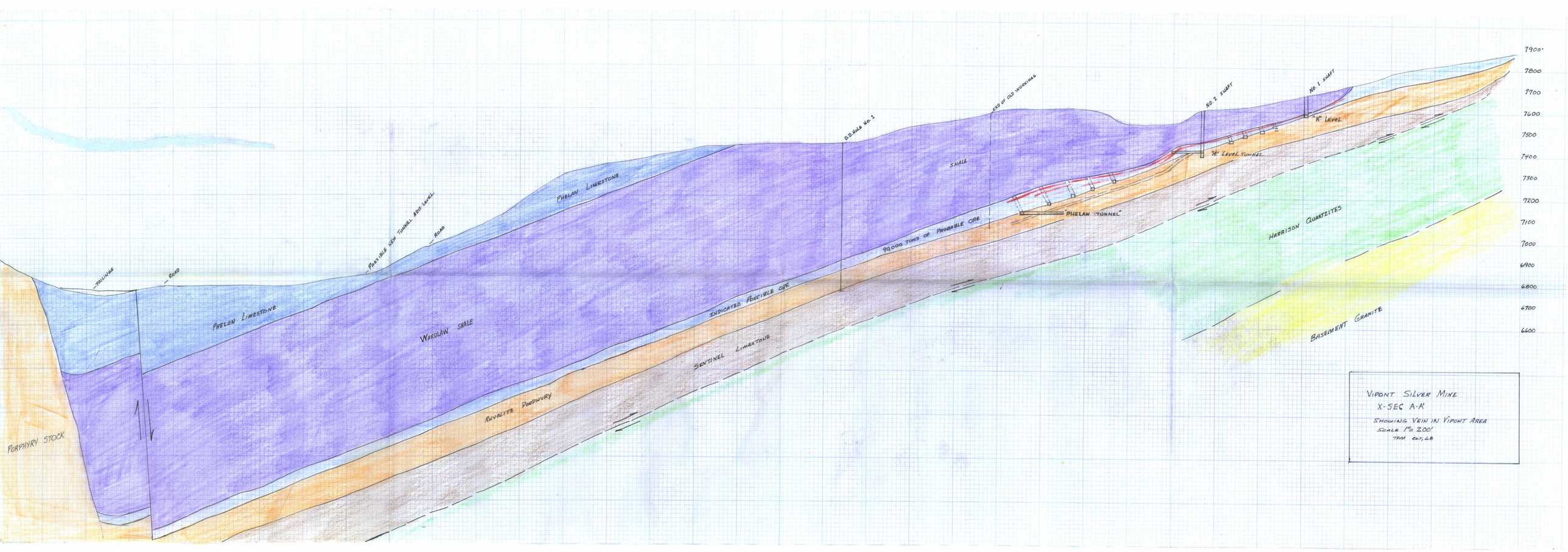
Use other side

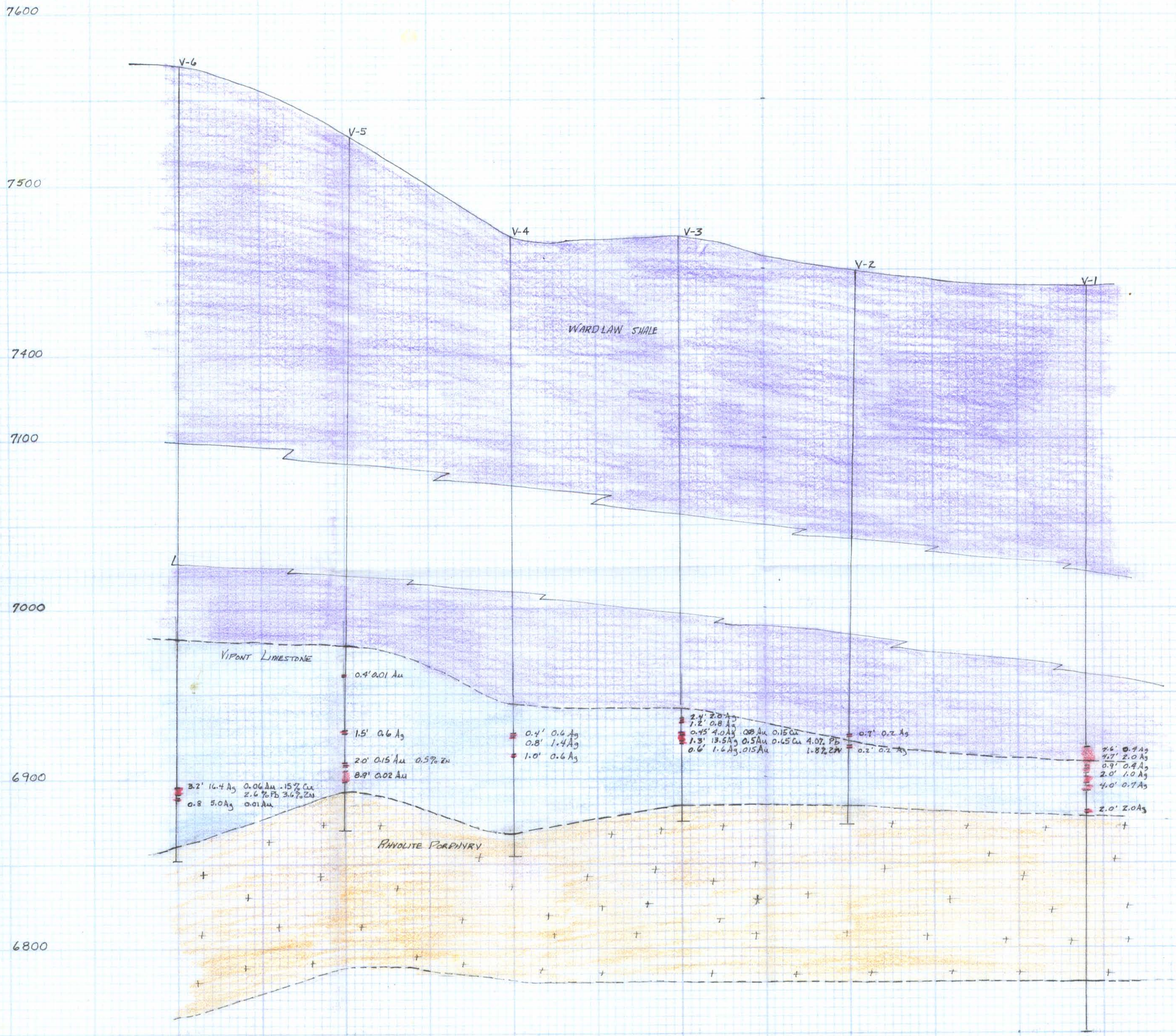
Use STOP only when messenger service between Government buildings in Washington, D. C., is required or wherever a STOP system is used. Your mail room has STOP information.


- EXPLANATION -
Tertiary - Porphyritic intrusive rocks; rhyolite
Tertiary - Porphyritic coarse grained whitish colored granite
Pennsylvanian - Pha on fm - Coarse to finely crystalline light blue grey massive bedded limestone locally cherty
Unconformity
Mississippian - Wardsville fm - Very dark grey to black pyritic shale with lenses of quartzite and dolomite
Mississippian - Vipont fm - Fine grained, crystalline, blue grey limestone locally containing numerous small calcite stringers
L. Mississippian - Sentinel fm ? White to tan sucrose quartzite locally bedded
Unconformity
Pre-Cambrian - Horsethief Series - White to pinkish vitreous quartzite with muscovite mica
Thrust Fault
Dashed where approximately located, dotted where concealed. Sawteeth on upper plate
Contact - Dashed where approximately located, dotted where concealed
Fault showing dip - dashed where approximately located, dotted where concealed
Strike and dip of beds
Vertical Strata
Prospect
Portal of adit
Syncline showing axial dip of plunge
Anticline showing axial dip of plunge
Section corner
Stones
Marker
Projected zone boundary
THIN RHYOLITE DIKE
SHORTED NORTH LINE MINE
Trf
Mw
Mvi
Ms
Peh
Pph
Ti
A
A'
B
B'
C
C'
D
D'
E
E'
F
F'
G
G'
I-1
J-1
K-1
L-1
M-1
M-2
M-3
N-3
V-1
V-2
V-3
V-4
V-5
V-6
Adit
Shaft
Tunnel
Stope
Pit
Cave
Birch
Creek
APPROXIMATE MEAN DECLINATION 1958
GEOLOGICAL AND TOPOGRAPHICAL MAP
OF
VIPONT MINE AREA
ASHBROOK MINING DISTRICT
BOX ELDER COUNTY, UTAH
SCALE IN FEET
CONTOUR INTERVAL 10' SEA LEVEL DATUM
Scale 1" = 100'
GEOLOGY BY
Thomas F Miller
Charles F Thomas
August - September 1965
Topography Compiled By Photogrammetric Methods - Nielson Aerial Survey - October 1965



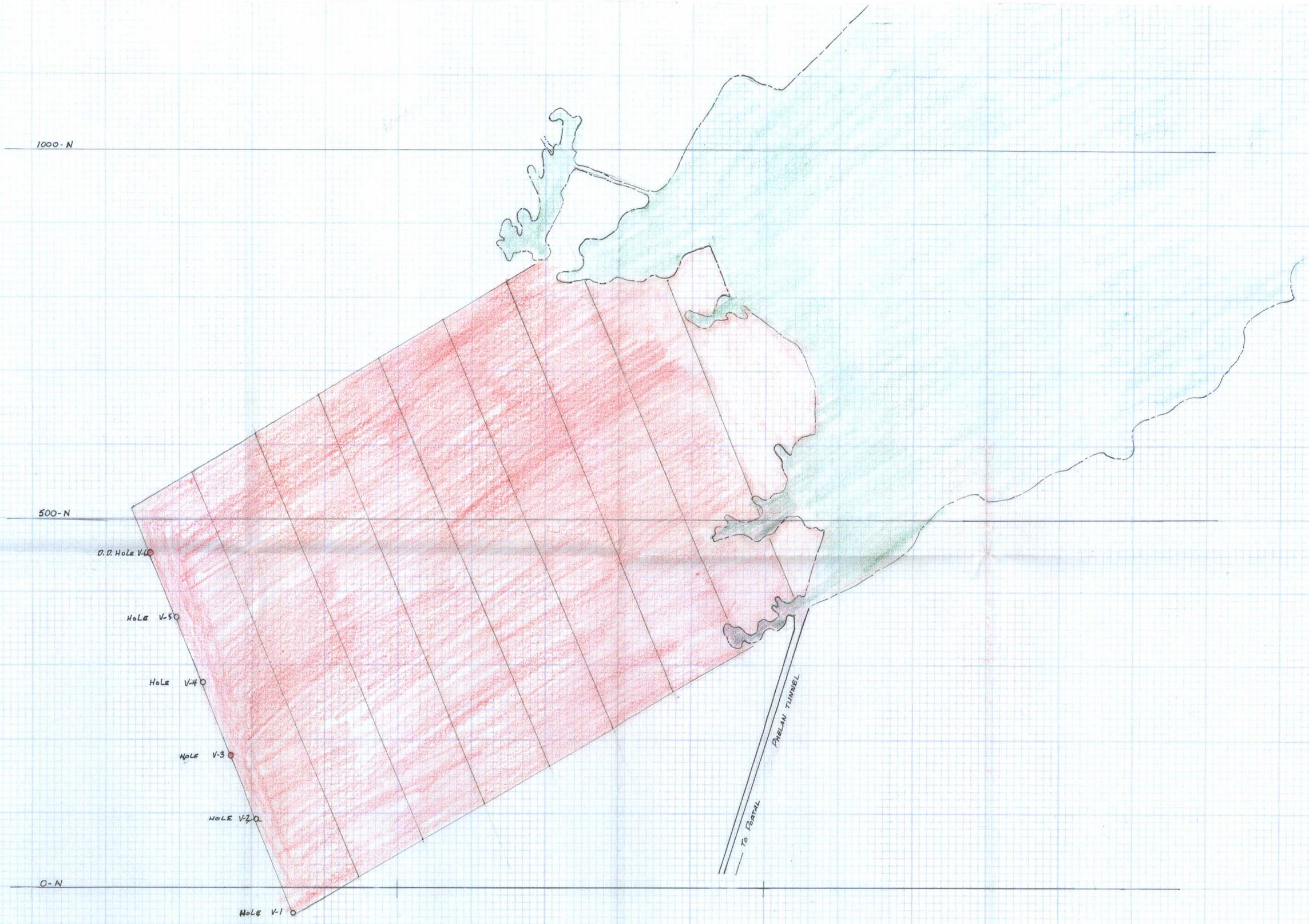

VIPONT SILVER MINE
X-SEC. B-B'
LEXINGTON-ARGENTA AREA
SCALE 1" = 200'
TPM OCT, 68


7900
7800
7700
7600
7500
7400
7300
7200
7100
7000
6900
6800
6700
6600
TAILINGS
ROAD
POSSIBLE VEIN TUNNEL ABOVE LEVEL
ROAD
PHELAN LIMESTONE
PHELAN LIMESTONE
WARDLAW SHALE
PORPHYRY STOCK
D.D. HOLE No. 1
END OF OLD WORKINGS
SHALE
90,000 TONS OF PROBABLE ORE
INDICATED POSSIBLE ORE
SENTINEL LIMESTONE
RHYOLITE PORPHYRY
PHELAN TUNNEL
"A" LEVEL TUNNEL
NO. 2 SHAFT
NO. 1 SHAFT
"K" LEVEL
HARRISON QUARTZITES
BASEMENT GRANITE
VIPONT SILVER MINE
X-SEC A-A'
SHOWING VEIN IN VIPONT AREA
SCALE 1" = 200'
TPM OCT. 68




ASSAY MAP

VIPONT SILVER MINE
VIPONT AREA HOLES
X-SECTION C-C'
SCALE 1" = 50'
TFM OCT, 68




VIPONT AREA OREBODY

VIPONT SILVER MINE

PLAN VIEW OF VEIN AREA IN THE VIPONT AREA

MINED AREA

PROBABLE ORE

TFM OCT. 68

SCALE 1" = 100'