UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Terminated (or cancelled) without certification. DMEA No. 2360

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

Left Side

- ✓ Certificate of Audit (Final).
- Interim Audit(s).
- Report of Review.
- Termination Notice or Agreement.
- Recision Notice.
- Assignment of Contract.
- Contract Amendments (latest on top).
- ✓ Contract with all exhibits and annexes.
- Owner's Consent to Lien.
- Subordination Agreement.
- Leases and assignments of leases.
- ✓ Application and attachments.
- Schedule of Collections.
- ✓ Operator's monthly reports and all attachments (latest on top).

Right Side

- ✓ Project summary.
- ✓ Work completed analysis.
- All other material is filed in chronological order with correspondence including the following reports as checked:
  - ✓ Final Field Team Report. (Tab)
  - ✓ Operator's Final Report.
  - ✓ Interim Reports.
  - On-site Exam Report(s). (Tab)
  - Settlement Sheets.

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

Maps in folder number_____

Operator's Monthly Reports in folder number _____

R.C.S.
Reviewer's Initials

NOV 1 1952

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

AUDIT CERTIFICATE

I have examined the records and transactions of

Madisonian Mining and Milling Company
Box 538
Bozeman, Montana

pertaining to Exploration Project Contract No. Idm-E272, Docket No. DMA 2360, for the period of June 18 through October 19, 1952.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

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

Total cost as billed by contractor			$11,014.09
Exceptions (see Audit Report for details):			
During this audit	$9.10		
Prior to this audit	960.00	$969.10	
Less: Reinstatements		7.54	961.56
Total accepted cost			$10,052.53

The contract calls for a 90 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Nine thousand forty seven and 28/100 Dollars,

$9,047.28

is valid and proper.

This certificate is issued on the provision that the Regional Executive Officer, the Administrator, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

November 14, 1952

Robert M. Hull

Robert M. Hull, Auditor

I INTRODUCTION

On November 13, 1952, a final audit (covering the period of June 18 to October 19, 1952) was made of the records and accounts of operations pertaining to Contract No. Idm-E272, Docket No. DMA 2630, with the

Madisonian Mining and Milling Company
Box 538
Bozeman, Montana

covering a project of exploration for asbestos.

The exploration project is located in East Mile Creek Valley, Madison County, Montana. The accounting records under this contract are maintained in the company's office in Bozeman, Montana; however, the records were audited in the office of the Defense Minerals Exploration Administration, Spokane, Washington, where the exploration project was reviewed at a conference between the DMEA Field Team and the company president, Mr. C. A. Lester, the secretary, Mrs. M. G. Lester, and the engineer, Mr. Stephen W. Zoldok.

II GENERAL INFORMATION ON RECORDS

The accounting records for the exploration project consist of monthly cost distribution statements supported by payroll records, and copies of purchase invoices or suppliers' statements.

No standard accounting records or ledgers are maintained.

III SCOPE OF AUDIT AND FINDINGS

The audit consisted of a detailed examination of all accounting data as to accuracy, propriety, and validity of the costs as shown in the "Totals to Date" column of Form MF-104, "Operator's Monthly Report

and Voucher" for September and October 1952. The extent of the audit and the findings under each of the "Items of Cost" follow:

(1) Independent Contracts

During July and August 1952, a total of 222 hours of bulldozing was done by contract with Interstate Products Company at $10.00 per hour. Of this work 96 hours covering the "reopening of old tunnel" was disallowed, amounting to $960.00. Exhibit "A" of the project contract states in part: "In view of the indefinite specifications for the work to be performed, all of the work at all points is subject to approval of the Government from time to time in the course of the work." This work was not deemed necessary by the Field Team. The remainder of the work, amounting to $2,980.00, was approved by the Field Team and was properly vouchered.

(2) Labor and Supervision

The charges under this item were checked against the payroll records. The audit disclosed the following status of this item as of October 19, 1952.

	Charged on MF-104	Disallowed by Audit	Allowable cost
Labor	$1,820.00		$1,820.00
Supervision	2,364.00	$4.00	2,360.00
Technical Services	976.00	2.68	973.32
	$5,160.00	$6.68	$5,153.32

The labor, supervision and technical service charges were at the rates within the limits of the exploration contract.

(3) Operating Materials and Supplies (explosives, gas and oil)

All charges against this category were checked against the monthly cost distribution sheets. All purchases for the period under audit were verified for adequate accounting support. The company does not maintain a stores account. All items were charged directly to the project. The supplies were all used on the project.

(4) Operating Equipment

a. Rental

Exhibit "A" of the exploration contract provides for monthly rental allowances to the Operator for sundry equipment used. Charges for this item were made at the authorized rates when such equipment was indicated as being in use on the project.

(5) Miscellaneous

a. Payroll taxes and liability insurance

The charges for payroll taxes and insurance were checked by computation at the rates shown by the company files to be in effect. These rates were:

Social Security Tax	1.5%
Unemployment - Montana	2.7%
Liability insurance	
Miner	5.75 per $100.00
Office	.55 per $100.00

At the time wages and salaries, totaling $6.68, were disallowed the sum of $2.42 in payroll taxes and liability insurance was also disallowed. The sum of $7.54 in payroll taxes erroneously omitted from the MF-104 for the period June 18 to June 30, 1952 is reinstated.

The Operator erroneously classified $16.57 under payroll taxes. This amount should be included under liability insurance.

b. Accounting and freight on samples

Invoices covering the above charges were examined and were within the limits of the exploration project.

IV CONCLUSIONS AND RECOMMENDATIONS

This audit has disclosed that all costs as charged to the project as reflected in Exhibit "A" attached to this report are in accordance with the terms of the contract.

Robert M. Hull

Robert M. Hull, Auditor

MADISONIAN MINING AND MILLING COMPANY, INC.
Exploration Project Contract Idm-E272

EXHIBIT "A"

	Totals to date Sept-Oct 1952 MF-104	Deletions by DMEA Fin. Officer	Deletions by audit	Reinstated by Audit	Acceptable costs 10/19/52
(1) Independent contracts					
Bulldozing	$3,940.00	$960.00			$ 2,980.00
(2) Labor & Supervision					
Labor	1,820.00				1,820.00
Supervision	2,364.00		$4.00		2,360.00
Tech. Services	976.00		2.68		973.32
(3) Operating Materials and Supplies					
Explosives	309.20				309.20
Gas, oil	120.00				120.00
(4) Operating Equipment					
Rental	972.83				972.83
(5) Miscellaneous					
*Payroll taxes	213.66		1.80	$7.54	202.83
Liability insur.	117.20		.62		133.15
Freight on samples	31.20				31.20
Accounting	150.00				150.00
	$11,014.09	$960.00	$9.10	$7.54	$10,052.53

*The sum of $16.57 reclassified under liability insurance.

MF-20
(June 1951)

DMEA
Docket No. ~~DMA~~ 2360
Commodity Asbestos

Idm-E-272

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Government Copy

EXPLORATION PROJECT CONTRACT [1]

It is agreed this 11th day of March, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Madisonian Mining and Milling Co., a corporation
Box 538
Bozeman, Montana

hereinafter called the "Operator," as follows:

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

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Montana, County of Madison described as follows: [3] 54 unpatented mining claims in East Mile Creek unorganized mining district as described in Annex I attached hereto.

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

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: None.

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

3. *Exploration project.* The Operator, within Ninety (90) days from the date of this contract shall commence work on a project of exploration for [5] Asbestos; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] Eight (8) Months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

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

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

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

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

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

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

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

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

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

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

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 90 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $21,960, which is 90 percent of the agreed estimated total cost of this project, $24,400.

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

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

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

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

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

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

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

Executed in sextuplicate the day and year first above written.

Madisonian Mining and Milling Co.
(Operator)

By C. A. Reiter
Pres.

THE UNITED STATES OF AMERICA

By C. D. Mittendorf
Acting Administrator
Defense Minerals Exploration Administration

GOVERNMENT PRINTING OFFICE 16—64066-2

ANNEX I

(1) Orphan Girl Lode Mining Claim, amended location, Filed July 6, 1918, Book 25 Lode Locations, Page 631.

(2) Lucky Boy Quartz Lode Mining Claim, amended location, Filed July 6, 1918, Book 25 Lode Locations, Page 632.

(3) Amended Location, Joffre Lode Mining Claim, Filed July 6, 1918, Book 25 of Lode Locations, page 634.

(4) Queen Anne Lode Mining Claim, Amended Location, Filed July 6, 1918, Book 25 Lode Locations, page 635.

All of the above are recorded in the office of the County Clerk and Recorder of Madison County, Montana.

(5) Jackpot Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 Lode Locations, page 333.

(6) Urchin Quartz Lode Mining Claim, filed November 6, 1951 in Book 36 Lode Locations page 335.

(7) Orphan Boy Quartz Lode Mining Claim, Filed November 6, 1951, in Book 36 Lode Locations, page 337.

(8) Lucky Girl Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 Lode Locations, page 339.

(9) Millsite No. One Quartz Lode Mining Claim, Filed November 6, 1951, in Book 36 Lode Locations, page 341.

(10) No. Four Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 343.

(11) No. Five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 345.

(12) No. Six Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 347.

(13) No. Seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 349.

(14) No. Eight Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 351.

(15) No. Nine Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 353.

(16) No. Ten Quartz Lode Mining Claim, filed November 6, 1951 in Book 36 Lode Locations, page 355.

(17) No. Eleven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 357.

(18) No. Twelve Quartz Lode Mining Claim, filed November 6, 1951 in Book 36 of Lode Locations, page 359.

(19) No. Twenty-four Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 361.

(20) No. Twenty-five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 363.

(21) No. Twenty-six Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 365.

(22) No. Twenty-seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 367.

(23) No. Twenty-eight Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 369.

(24) No. Twenty-nine Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 371.

(25) No. Thirty Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 373.

(26) No. Thirty-one Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 375.

(27) No. Thirty-two Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 377.

(28) No. Thirty-three Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 379.

(29) No. Fifty-one Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 381.

(30) No. Fifty-two Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 383.

(31) No. Fifty-three Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 385.

(32) No. Fifty-four Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 387.

(33) No. Fifty-five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 389.

(34) No. Fifty-six Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 391.

(35) No. Fifty-seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 393.

(36) No. Fifty-eight Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 395.

(37) No. Fifty-Nine Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 397.

(38) No. Sixty-seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 399.

(39) No. Sixty-eight Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 401.

(40) No. Sixty-nine Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 403.

(41) No. Seventy Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 405.

(42) No. Seventy-one Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 407.

(43) No. Seventy-two Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 409.

(44) No. Seventy-three Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 411.

(45) No. Seventy-four Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 413.

(46) No. Seventy-five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 415.

(47) No. Seventy-six Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 417.

(48) No. Seventy-seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 419.

(49) No. Seventy-eight Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 421.

(50) No. Seventy-nine Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 423.

(51) No. Eighty-seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 425.

(52) Cougar No. Ninety-four Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 427.

(53) No. Ninety-five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 429.

(54) No. One Hundred Twenty-five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 431.

EXPLORATION PROJECT CONTRACT
MADISONIAN MINING AND MILLING COMPANY
DOCKET NO. DMEA-2360

EXHIBIT "A"

Statement of the Work

The work shall be performed in two stages, Stage II to be undertaken only if in the opinion of the Government the results of Stage I are favorable to making a significant discovery. In view of the indefinite specifications for the work to be performed, all of the work at all points, is subject to the approval of the Government from time to time in the course of the work. The geologist to be employed is subject to the approval of the Government.

Stage I: Stage I will consist of geological work, geophysical work, surveying, and mapping upon which the work to be undertaken in Stage II will be based. The estimated time for completion of Stage I is two months.

Stage II: Stage II will consist of additional geological work, geophysical work, mapping, bulldozing, trenching, drifting, crosscutting, test pitting, and/or opening up old workings, all for the purpose of testing and sampling and not for mining or preparation for mining. The Operator's geologist, subject to the approval of the Government, shall determine the nature and extent of this work.

If the results of primary sampling in the opinion of the Government warrant it, sufficient material for bulk testing shall be obtained and shipped to the mill of the Interstate Products Company at Bozeman, Montana, or to some equally qualified testing laboratory, to be tested.

Estimated Costs of the Project

Stage I

Fixtures and Improvements

None

Operating Equipment

To be purchased:

None

To be furnished by the Operator:

None

To be rented:

1--Car for 2 months @ $75.00 per mo.		$ 150.00

Labor and supervision

1--Geologist, 2 months @ $600.00 per mo. 1/	$1,200.00	
1--Instrument man, 2 months @ $400.00 per mo.	800.00	
1--Laborer, 40 days @ $14.00 per day	560.00	
Workmen's compensation, Social Security, unemployment taxes	213.00	2,773.00

Rehabilitation and repairs

None

Supplies

Gas, oil and maintenance	120.00
Total for Stage I	$ 3,043.00

Stage II

Fixtures and improvements

None

Operating equipment

To be purchased:

None

To be furnished by the Operator

None

1/ Qualifications must meet with the approval of the Government.

To be rented:

1--D-8 bulldozer including operator, fuel, oil and maintenence, 60 days @ $14.00 per hour 2/	$6,720.00	
2--Jackhammers, complete with accessories and connections, 3 months @ $20.00 ea.	120.00	
1--210 cu. ft. portable compressor, 3 months @ $250.00 per mo.	750.00	
1--Light truck, 3 months @ $75.00 per mo.	225.00	
1--4 x 9 truck, 3 months @ $75.00 per mo.	225.00	$8,040.00

Labor and supervision

1--Superintendent, 3 months @ $600.00 per mo.	1,800.00	
1--Geologist, 3 months @ $600.00 per mo. 3/	1,800.00	
1--Instrument man, 3 months @ $400.00 per mo.	1,200.00	
1--Laborer to assist geologist and surveryor, 60 days @ $14.00 per day	840.00	
4--Miners, 240 days @ $16.00 per day	3,840.00	
Workmen's compensation, Social Security, and Unemployment Tax	873.00	10,353.00

Rehabilitation and repairs

None

Supplies

Lumber, powder, fuse, caps, pipe and fittings, hose, pressure water tanks, drill steel and bits, small tools and supplies	$1,964.00	
Gas, oil and maintenance for equipment	600.00	
Mill tests, including shipping charges	250.00	
Accounting	150.00	$2,964.00
Total for Stage II		$21,357.00
Total estimated costs for Stages I and II		$24,400.00

Maps showing monthly progress of the exploration with results of samples taken concurrently with the work where warranted are to be included in progress report required under Section 12 of the contract. In case such maps are not submitted, the Government, at its discretion, may have the necessary work performed and charge the same to the contract.

2/ Costs allowed only for actual operating time.

3/ Qualifications must meet with the approval of the Government.

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

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

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

Not To Be Filled in by Applicant

Docket No. DMEA-2360
Metal or Mineral
Date Received 2-1-52
Amount $ 24,240
Participation (Government %) 90%

Madisonian Mining and Milling Co.
Box 538
Bozeman, Montana

Name and address of applicant

Date January 8, 1952

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

Department of the Interior
Defense Minerals Administration
RECEIVED
FEB 1 1952

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

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

Madisonian Mining Milling Co. (Name of company) By C. A. Lester (Signature of authorized official)

Jan. 17 – 1952 (Date) Pres. (Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

FORM MF-103

1. (a) 54 unpatented claims in East Mile Creek unorganized mining district. Total area about 1,000 acres. See attached sketch map.

   (b) Corporation owns title in claims.

   (c) Same as (a)

2. (a) Spinning grade asbestos, talc

   (b) The chrysotile asbestos occurs in irregular serpentinized bodies in pre-Cambrian magnesian limestone. The serpentinized bodies are at the contact of the limestones with a gabbro intrusive. The intrusive contact is concordant in places and discordant at others. The serpentinized areas in the limestone appear to be localized at points above flat-lying contacts, or where small pendants of limestone extend short distances into the intrusive.

   Four widely spaced occurrences have been prospected on the property. One of these is at the millsite on Little Mile Creek from which a small amount of chrysotile has been produced; the other three occurrences are along an east-west-trending ridge to the north and 2,000 feet in elevation above Little Mile Creek. These occurrences contain a cross-fiber chrysotile asbestos over areas up to 150 feet by 40 feet in vertical section and of undetermined lateral extent. The asbestos content of these bodies as a whole appears to be in the order of 1 percent, with localized concentrations of 3-5 percent or better across sections of three to five feet. The fiber lengths vary up to 3/8 of an inch. Very small quantities of long fibers are present.

   It appears possible under present conditions that some commercial production of asbestos may be obtained from the known occurrences and that the geologic setting is such that further exploration may expose reserves of chrysotile of better quality.

3 and 4. It is proposed to make a geologic map of the entire property showing contacts, prospect workings, geologic structures, and other geologic features and ore occurrence, roads, and topographic features. Topographic maps will be prepared of the significant parts of the area. The mapping will be accompanied and followed by bulldozing to open up and test the asbestos showings. Some of the caved tunnels will be opened. Bulk

samples will be taken from the ore exposures and processed in the mill of the Interstate Products Company at Bozeman or elsewhere. Total estimated cost of project is $24,240.00.

5 and 6. No useable facilities exist on the property. Such facilities as are required to be constructed or repaired, other than roads, will be constructed at the applicant's expense.

7. (a)

1 D-8 caterpillar to be rented 60 days at $120 per day.	$7200.00
1 315 cu. ft. portable compressor 3 months at $395 a month.	1185.00
2 Jackhammers J-55 complete with connections, 3 months, $40.50 per month.	121.50
1 portable wagon drill complete with accessories and connections, 3 months at $189.00 per month.	567.00
1 light truck, 3 months at $75.00 per month.	225.00
1 4 x 9 truck, 3 months at $75.00 per month.	225.00
Total equipment rented - - - - -	$9523.50
(b) Small equipment to be purchased	500.00
(c) None	
Total equipment cost	$10,023.50

8.

1 Superintendent, 3 months at $600.00 per month.	$ 1800.00
1 Geologist, 3 months at $600.00 per month.	1800.00
1 Geologist helper, 3 months at $275.00 per month.	825.00
1 Laborer to assist geologist 60 days at $14.00 per day.	840.00
5 Miners 300 days at $16.00 per day.	4800.00
Total labor, geology, and supervision - -	$10,065.00

9. Supplies:

Explosives Caps and fuse, and blasting wire	$ 600.00
300 foot airhose and connections and fittings	300.00
2 inch pipe and fittings	200.00
1 inch pipe and fittings	100.00
2 pressure tank at $30	60.00
1/2 inch water hose	75.00
Jackhammer steel	200.00
Jackhammer bits	180.00
Miscellaneous small tools and supplies	536.50
Transportation: gas, oil and maintenance	250.00
Fuel and maintenance of operating equipment	500.00
Mill tests, including shipment charges on ore	1000.00
Bookkeeping	150.00
	$4151.50

10. (a) $2500.00

(b) Yes

11. None

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-2360

Date received 2-1-52

Madisonian Mining and Milling Co.
Box 538
Bozeman, Montana

Name and address of applicant

Date January 8, 1952

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

RECEIVED
FEB 1 1952
Defense Minerals Administration

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated.

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
C. A. Lester	President "D"	None	$150,000	199,500	- -	Substantial	
Doyle S. Potts	Vice Pres. "D"	None	Substantial	1,000	- -	Substantial	
M. G. Lester	Sec. Treas."D"	None	Substantial	199,500	- -	Substantial	
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$ 500,000	$ 400,000	$ 1.00	400,000	None
Preferred stock	$	$	$		

*Indicate period covered.

10. Production: None

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

FORM MF-100

1. (a) Spinning grade asbestos
   (b) Possibly talc

2. Property is a prospect
   There are a number of pits, trenches, and old prospect tunnels, most of which are caved; two are open.

3. (a) Property is 35 miles south of Ennis, Montana. Nearest shipping point is Norris, Montana, 45 miles distant. Paved highway within 8 miles of mine.

   (b) East Mile Creek unorganized mining district, Madison Co., Montana.

   (c) See center in sec. 25 T. 12 S. R. 2 E.

   (d) Madison Co., Montana

4. (a) In prospect stage

   (b) Company has clear title to all claims

5. Prospect stage

6. Mr. C. A. Lester, President, Operator, Interstate Products Co., producing amphibole asbestos in Gallatin Co., Montana.

   Mr. S. G. Hammontre will be in direct charge of all operations. He has had 15 years experience mining with Anaconda Mining Co.

7. (a) There has been intermittent prospecting for asbestos in the district for many years but no sustained production.

   (b) Not applicable

   (c) Property described in Memoir No. 27, State of Montana, Bureau of Mines and Geology - Talc, Graphite, Vermiculite, and Asbestos in Montana by Eugene S. Perry. See page 27, Serpentine Asbestos near Cliff Lake.

12. (a) The chrysotile asbestos occurs in irregular serpentinized bodies in pre-Cambrian magnesian limestone. The serpentinized bodies are at the contact of the limestones with a gabbro intrusive. The intrusive contact is concordant in places and discordant at others. The serpentinized areas in the limestone appear to be localized at points above flat-lying contacts, or where small pendants of limestone extend short distances into the intrusive.

Four widely spaced occurrences have been prospected on the property. One of these is at the millsite on Little Mile Creek from which a small amount of chrysotile has been produced; the other three occurrences are along an east-west-trending ridge to the north and 2,000 feet in elevation above Little Mile Creek. These occurrences contain a cross-fiber chrysotile asbestos over areas up to 150 feet by 40 feet in vertical section and of undetermined lateral extent. The asbestos content of these bodies as a whole appears to be in the order of 1 percent, with localized concentrations of 3-5 percent or better across sections of three to five feet. The fiber lengths vary up to 3/8 of an inch. Very small quantities of longer fibers are present.

It appears possible under present conditions that some commercial production of asbestos may be obtained from the known occurrences and that the geologic setting is such that further exploration may expose reserves of chrysotile of better quality.

12. (b) Not applicable

13. 45 miles to railroad at Norris, Montana. All but 8 miles over paved road.

14. Abundant water supply on property

15. Six miles to Montana Power Company line

16. Not applicable

17. None

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

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

Madisonian Mining Milling Co.
(Name of company)

By C A Lester
(Signature of authorized official)

Jan 17-1952
(Date)

Pres.
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

COPY

A. J. WALCOTT COMPANY

Industrial Petrography and Mineralogy
507 Dekum Bldg.
Portland 4, Oregon

October 3, 1951

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 1 1952

TO: Ivan Bloch and Associates
621 Park Building
Portland 5, Oregon

FROM: A. J. Walcott
507 Dekum Building
Portland 4, Oregon

Subject: Mineralogical Study of Twenty pieces of Asbestos Ore.

Object: To determine the mineralogical classification of the samples of asbestos ore, their physical properties, qualitative chemical test for iron, identification of the rocks associated with the asbestos.

Petrographic Study: All samples of asbestos were identified as serpentine asbestos (chrysotile).

Grouping of Samples: The samples occur in two distinct types of serpentine asbestos. The asbestos mineral of each group may be identified by means of physical properties, optical properties, and rock associates. Under one group the samples, for convenience, are numbered from 1 to 4 inclusive. Under the second group the samples are numbered from 5 to 10 inclusive. Four pieces are included under No. 1. Nos. 2 and 3 each consist of one piece; No. 4, two pieces; Nos. 5, 6, and 7 each one piece; No. 8, four pieces; No. 9, two pieces; No. 10, four pieces.

Physical properties, No. 1, 2, 3, 4:

The color of the asbestos, in aggregate, varies from light gray to grayish-yellow. Clean, compact surfaces show well-defined chatoyancy. Fibers may be separated by rubbing briskly. In general the fibers cohere rather tenaciously. Fibers are quite fine, probably from two to four microns in diameter. Tensile strength is sufficient to require a perceptible effort to pull the fiber to pieces. Fibers vary in length from 1/4 inch, 1/2 inch to 1 inch.

Rock Associates:

No. 1. Immediately in contact with the asbestos fibers is a layer of apple-green to dark green serpentine. This serpentine is harder (5.5 to 6) than the general occurrences of serpentine (2.5 to 4.) On the surface of the serpentine there is a thin layer of talc.

No. 2. Immediately in contact with the asbestos is serpentine - same variety as of No. 1. On the surface is a thin layer of talc and some calcite. Also, a layer of serpentine lies between two layers of asbestos.

No. 3. Serpentine, same as of No. 1, is in contact with the asbestos. Next is a layer of light gray limestone.

No. 4. Serpentine, same as of No. 1, is in contact with the asbestos. No other associates.

Physical properties, Nos. 5 to 10 inclusive:

Color: light bronze, pronounced chatoyancy, uniform texture. Fibers are quite fine and compact, from 1.5 to 3 microns in diameter. Tensile strength is good.

Rock associates:

In each sample the immediate contact rock is a light greenish yellow serpentine. In Nos. 8, 9, and 10 serpentine and crystalline limestones (calcite) are intergrown. The fibers of Nos. 5 to 10 inclusive are appreciably shorter than Nos. 1 to 4 inclusive. Qualitative chemical tests indicate a low percent of iron in all samples. The asbestos of all samples is cross-fiber.

Respectfully submitted,

A. J. Walcott /s/

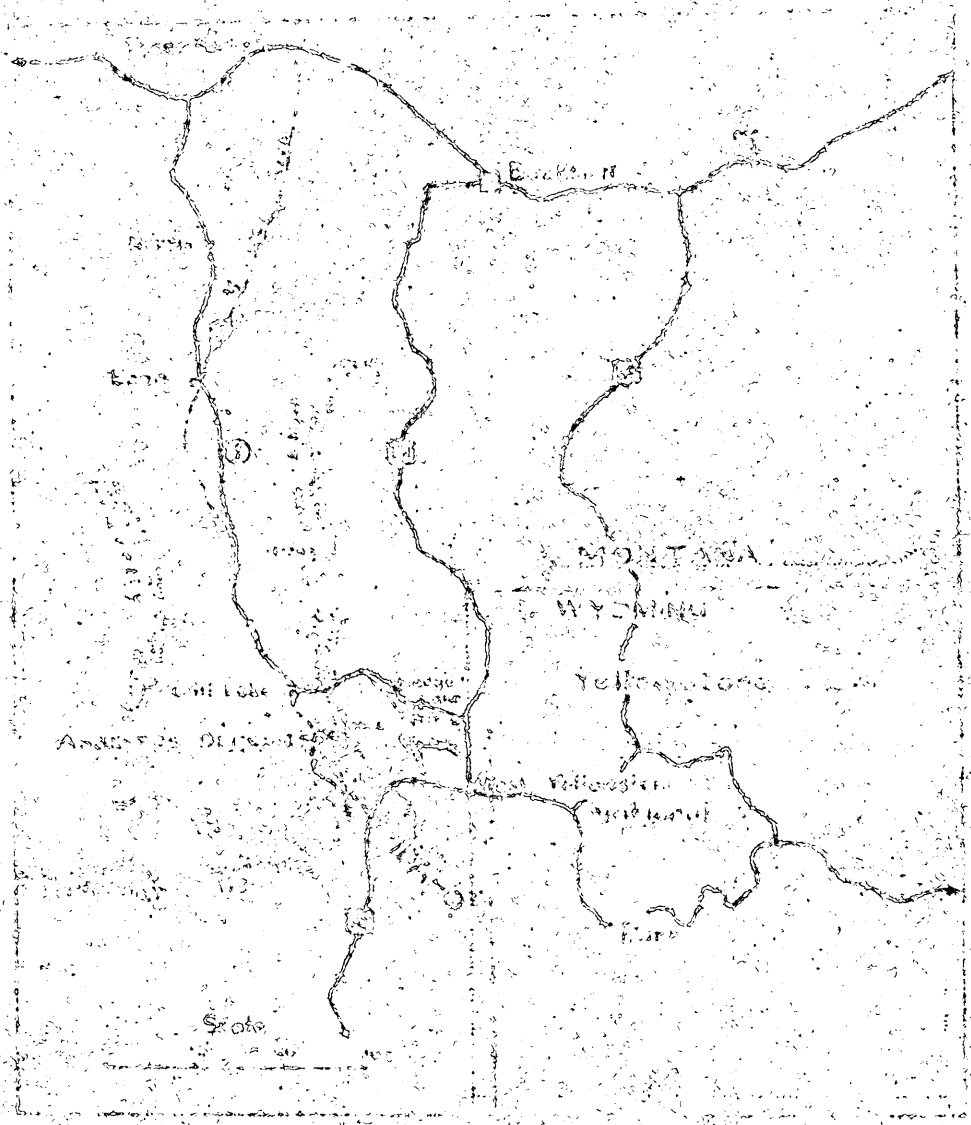

Figure 1. Location of sample from [illegible] Bonanza of the [illegible] Yellowstone.

Standard Form No. 1034a—Revised
Form prescribed by
Comptroller General, U. S.
September 7, 1950
(Gen. Reg. No. 51, Supp. No. 11)

PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

D. O. Vou. No. .....

Au. Vou. No. 545

U. S. Interior, Mines
(Department, bureau, or establishment)

Voucher prepared at Spokane, Washington 11/25/52
(Give place and date)

THE UNITED STATES, Dr., Payee's Account No. Idm-E272

To Madisonian Mining & Milling Co., Inc.,
(Payee)

Box 538, Bozeman, Montana
(Address) (City) (State)

PAID BY

(For use of Paying Office)

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary) Discount Terms	QUANTITY	UNIT PRICE Cost	UNIT PRICE Per	AMOUNT Dollars	AMOUNT Cts.
	Sept. & October 1952	As per attached certified form MF-104 dated 10/27/52				3,122	14
PAYMENT: Complete ☐ Partial ☐ Final ☐		Use continuation sheet(s) if necessary					

Shipped from to Weight Government B/L No. Total 3,122 14

(Payee must NOT use this space)

Differences .....

Account verified; correct for 3,122 14

(Signature or initials) .....

Contract No. Idm-E272 Date Req. No. Date Invoice Rec'd.

3,122.14

MEMORANDUM

ACCOUNTING CLASSIFICATION (For completion by Administrative Office)

Appropriation, limitation, or project symbol	Appropriation title	Limit'n. or Proj't. Amount	Appropriation Amount
14X4401	Revolving Fund, Defense Production Act, Interior	3,122.14	3,122.14

Allotment symbol	Amount	Obligations liquidated	COST ACCOUNT Symbol	COST ACCOUNT Amount	OBJECTIVE CLASSIFICATION Symbol	OBJECTIVE CLASSIFICATION Amount

Paid by { Check No. ..... dated ....., 19....., for $..... } on Treasurer of the United States in favor of payee named above.
{ Cash, $....., on ....., 19.....

16—22900a-2

METHOD OF OR ABSENCE OF ADVERTISING

METHOD OF ADVERTISING

1. Advertising in newspapers Yes ☐ No ☐.
2. (*a*) Advertising by circular letters sent to ..... dealers.
   (*b*) And by notices posted in public places Yes ☐ No ☐.

   (If notices were not posted in addition to advertising by circular letters sent to dealers, explanation of such omission must be made below.)

ABSENCE OF ADVERTISING

3. Without advertising, under an exigency of the service which existed prior to the order and would not admit of the delay incident to advertising.
4. Without advertising in accordance with .....
5. Without advertising, it being impracticable to secure competition because of .....

.....

.....

.....

.....

(Here state in detail the nature of the exigency or circumstances under which the securing of competition was impracticable under 3 and 4)

NOTE.—The above form "Method of or Absence of Advertising" is to be used when purchases are made or services secured under proper authority without written agreement in any form. In case of a written agreement (formal contract, proposal, and acceptance, or less formal agreement) Standard Form No. 1036—Revised should be used for abstracting the method of or absence of advertising and award of contract. (See General Regulations No. 51, as amended.)

U. S. GOVERNMENT PRINTING OFFICE : 1950 O—75805

16—22000a-2

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.
Defense Minerals Administration

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of Sept. & Oct., 1952 Docket No. DMEA 2360 Contract No. IDM-E-272
Operator's Name Madisonian Mining & Milling Co., Inc. Minerals Chrysotile Asbestos
Address Box 538, Bozeman, Montana
Contract Amount, $ 24,400.00 Government Participation: 90 % Amount, $ 21,960.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing (a)	1720.00	2220.00	3940.00	1720.00	1260.00	2980.00
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor (b)	126.00	1694.00	1820.00	126.00	1694.00	1820.00
Supervision	900.00	1464.00	2364.00	900.00	1460.00	2360.00
Technical Services		976.00	976.00		973.32	973.32
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives (c)	123.68	185.52	309.20	123.68	185.52	309.20
Pipe						
Track						
Gas, Oil						
Maintenance	none	120.00	120.00		120.00	120.00
(4) Operating Equipment:						
Rental	455.33	517.50	972.83	455.33	517.50	972.83
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes	43.09	170.57	213.66	50.63	152.20	202.83
Liability Insurance	12.82	104.38	117.20	12.80	104.95	117.75
Accounting	50.00	100.00	150.00	50.00	100.00	150.00
Freight on samples	31.20	none	31.20	31.20		31.20
(8) Contingencies (specify):						
TOTALS	3462.12	7551.97	11014.09	3469.04	6583.49	10052.53

I certify that the above bill is correct and just and that payment therefor has not been received.

Date October 27, 1952 *Payee Madisonian Mining & Milling Co., Inc.

Per M. J. Foster Title Sec.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 3122.14

Signature [signature]
(Authorized Certifying Officer)

Date 11/24/52 Voucher No. (See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 7dm-E-272 in accordance with the terms of the contract.

Signature John S. McNabb Jr. Title Mining Engineer Date 10-30-52

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature ..... Title ..... Date .....

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MP-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

1952

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Sept.-Oct. 1952 Docket No. DMEA 2360 Contract No. IDM-B-272
Operator's Name Madisonian Mining & Milling Co., Inc. Minerals Chrysotile Asbestos
Address Box 538, Bozeman, Montana

OPERATION	UNIT	COSTS THIS MONTH Sept.Oct.	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting mapping	day			3964.57 56.09	178	~~22.27~~ 22.22		
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching	hr.	1451.69 97	72	2219.69 97	124	17.90		
Test Pits & Sampling	day	none	none	335.00	18	18.61		
Roads and Trails	hr.	2010.43	100	3092.43	176	17.57		
Reopening old Tunnel	hr.			1402.40 1492.48	96	14.60 15.608		
TOTAL DISTRIBUTED COSTS		~~3462.12~~ 3461.50		~~11014.09~~ 10044.99				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

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

REMARKS:

Date Oct. 27, 1952 Operator Madisonian Mining & Milling Co., Inc.
Per M. G. Lester Title Sec.

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

NARRATIVE REPORT - SEPTEMBER-OCTOBER, 1952 PERIOD

To: Mr. J. A. Lester, Madisonian Mining and Milling Company, Inc.

From: Stephen W. Zoldok, Resident Engineer

During the September-October period, work at the project consisted of sampling, road building, and trenching the limestone-gabbro contact northwest of the No. 1 mine. Approximately 500 pounds of samples were taken in the Nos. 1 and 2 mines and shipped to the U. S. Bureau of Mines metallurgical laboratory at Albany, Oregon. During the period approximately 2.5 miles of road were constructed from the mill building to the No. 1 mine. The grade on this road does not exceed 15 per cent. During this same period, three trenches totaling approximately 2,000 feet were dug northwest of the No. 1 mine. Total time on trenching during this period was 72 hours. All three trenches exposed chrysotile asbestos at the limestone-gabbro contact. The contact exposed in the trenches is broken up by an east-west trending fault.

During the July-August period, 100 hours of bulldozer work was done in building an access road between the No. 1 and No. 3 mines (approximately one-half mile), and in doing 3,300 linear feet of trenching in the vicinity of the No. 2 mine. The 100 hours of dozer time was not claimed in the July-August voucher, but is being claimed in the September-October voucher.

Work at the project was terminated on October 17, 1952.

Messrs. A. E. Weissenborn, Monty Klepper, and Andrew Schride of the U. S. Geological Survey, and Mr. John S. McNabb of the U. S. Bureau of Mines were visitors at the project during the months of September and October.

Stephen W. Zoldok

Stephen W. Zoldok
Resident Engineer
October 30, 1952

Stephen W. McKeta

Standard Form No. 1034a—Revised
Form prescribed by
Comptroller General, U. S.
September 7, 1950
(Gen. Reg. No. 51, Supp. No. 11)

PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

D. O. Vou. No. .....

Bu. Vou. No. DMA 499

U. S. Interior, Mines
(Department, bureau, or establishment)

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
NOV 5 1952

Voucher prepared at Spokane, Wash
(Give place and date)

THE UNITED STATES, Dr., Payee's Account No. Idm-2272

To Maddisonian Mining & Milling Co., Inc.
(Payee)

Box 538, Bozeman, Montana
(Address) (City) (State)

PAID BY
(For use of Paying Office)

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary) Discount Terms	QUANTITY	UNIT PRICE Cost	UNIT PRICE Per	AMOUNT Dollars	AMOUNT Cts.
July & August 1952		As per attached certified form MF-104 dated 9/29/52				5,457	24
PAYMENT: Complete ☐ Partial ☐ Final ☐		Use continuation sheet(s) if necessary					

Shipped from to Weight Government B/L No. Total 5,457 24

(Payee must NOT use this space)
Differences .....
Account verified; correct for 5,457 24
(Signature or initials) .....

Contract No. Idm-2272 Date Req. No. Date Invoice Rec'd.

5,457.24

MEMORANDUM

ACCOUNTING CLASSIFICATION (For completion by Administrative Office)

Appropriation, limitation, or project symbol	Appropriation title	Limit'n. or Proj't. Amount	Appropriation Amount
14X4401	Revolving Fund, Defense Production Act, Interior	5,457.24	5,457.24

Allotment symbol	Amount	Obligations liquidated	COST ACCOUNT Symbol	COST ACCOUNT Amount	OBJECTIVE CLASSIFICATION Symbol	OBJECTIVE CLASSIFICATION Amount

Paid by { Check No. ..... dated ....., 19....., for $..... } on Treasurer of the United States in favor of payee named above.
{ Cash, $....., on ....., 19.....

16—22900a-2

METHOD OF OR ABSENCE OF ADVERTISING

METHOD OF ADVERTISING

1. Advertising in newspapers Yes ☐ No ☐.
2. (*a*) Advertising by circular letters sent to ..... dealers.
   (*b*) And by notices posted in public places Yes ☐ No ☐.

   (If notices were not posted in addition to advertising by circular letters sent to dealers, explanation of such omission must be made below.)

ABSENCE OF ADVERTISING

3. Without advertising, under an exigency of the service which existed prior to the order and would not admit of the delay incident to advertising.
4. Without advertising in accordance with .....
5. Without advertising, it being impracticable to secure competition because of .....

.....

.....

.....

.....

(Here state in detail the nature of the exigency or circumstances under which the securing of competition was impracticable under 3 and 4)

NOTE.—The above form "Method of or Absence of Advertising" is to be used when purchases are made or services secured under proper authority without written agreement in any form. In case of a written agreement (formal contract, proposal, and acceptance, or less formal agreement) Standard Form No. 1036—Revised should be used for abstracting the method of or absence of advertising and award of contract. (See General Regulations No. 51, as amended.)

U. S. GOVERNMENT PRINTING OFFICE : 1950 O—75805

16—22000a-2

[redacted]04 (Rev.)
[redacted]52)

Wash

Budget Bureau No. 42-R1036.3.
Approval Expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3 1952

UNITED STATES
[redacted]PARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July-August, 1952 Docket No. DMEA 2300 Contract No. I[illegible]-272
Operator's Name Madison Mining Co., Inc. Minerals Chrysotile
Address Box 538 Norman, Montana Asbestos
Contract Amount, $ Government Participation: % Amount, $21,[illegible]

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts: July/Aug.						
Drilling						
Bulldozing	$2220.00	none	$2220.00	1260.00		1260.00
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor	$1624.00	$ 70.00	$1694.00	1624.00	503.32	2127.32
Supervision	1200.00	254.00	1454.00	1200.00		1200.00
Technical Services	600.00	174.00	774.00	800.00		800.00
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives (a)	$185.52	none	$ 185.52	185.52		185.52
Pipe						
Track (b)	120.00	none	120.00	120.00		120.00
Gas, Oil, Maintenance						
(4) Operating Equipment:						
Rental	517.50	none	$ 517.50	517.50		517.50
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes	$154.00	$ 16.57	$ 170.57	152.20		152.20
Liability Insurance	104.38	none	104.38	104.38	16.57	120.95
Accounting: 2 mo. at $50.00 per month	100.00	none	100.00	100.00		100.00
(8) Contingencies (specify):						
TOTALS	$7025.40	$ 526.57	$ 7551.97	6063.60	519.89	6583.49

I certify that the above bill is correct and just and that payment therefor has not been received.

Date September 29, 1952 *Payee Madison Mining Co., Inc.

Per M. G. Lester Title Secretary

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 5457 24

Signature [illegible]
(Authorized Certifying Officer)

Date 10/30/52 Vou. No.
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. IdmE 272 in accordance with the terms of the contract.

Signature John S. McNabb Jr. Title Mining Engineer Date 10-20-52

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature ..... Title ..... Date .....

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

04A

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3 1952

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July/ Aug. 1952 Docket No. DMEA 2360 Contract No. [illegible]-272

Operator's Name Madisonian Mining & Milling Co., Inc. Minerals Chrysotile Asbestos

Address Box 538, Bozeman, Montana

OPERATION	UNIT	COSTS THIS MONTH July/Aug.	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
~~Drifting~~ Mapping	day	3436.00	162	3964.57	178	22.27		
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching	hour	768.00	52	768.00	52	14.77		
Test Pits & Sampling	day	335.00	18	335.00	18	18.61		
Roads and Trails	hour	1082.00	74	1082.00	76	14.62		
Reopening Old Tunnel	hour	1402.00	96	1402.40	96	14.60		
TOTAL DISTRIBUTED COSTS		7023.40		7551.97				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

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

Date Sept. 29, 1952 Operator Madisonian Mining & Milling Co.

Per M. G. Lester Title Secretary

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

MP 104 (continued)

July/August

3 (a) Total explosives cost for the period July-August was $309.20 of which 60% or $185.52 was prorated to Contract No. IDM-E-272

3 (b) Although the amount for gas, oil, and maintenance exceeded the amount allowed for the above item in Stage I, Contract No. IDM-E-272 only the amount allowed or $120.00 was taken.

TO: Mr. C. A. Lester, President, The Madisonian Mining and Milling Co., Inc.

FROM: Stephen W. Zaldok

SUBJECT: Narrative report for July and August 1952.

During the period July-August 1952 Stage I of Contract IDM-E-272 was completed and a geological report together with the following maps in sextuplicate were submitted to the U. S. Geological Survey, S. 157 Howard St., Spokane, Washington. Maps and report were by C. T. Bressler, Geologist in Charge.

(1) Geologic Map of Chrysotile deposits in the Little Mile Creek Area, Montana Scale 1" - 500'

(2) Geologic Maps of Tunnels, Little Mile Creek Area, Scale 1"-20'

(3) Geologic Map of Vicinity of Nos. 1 & 2 Mines, Scale 1"-100'

(4) Geologic Map of Old Asbestos Mine Area, Scale 1"-100'

Many difficulties were encountered due to the precipitous nature of the terrain in the area of the asbestos deposits. It was necessary to construct access roads to the deposits which took more time than actual stripping of the deposits themselves. Considerable drilling and blasting was required in both access roads and trenching. Approximately four miles of access roads were constructed between the various asbestos exposures which are now accessible by jeep or power wagon. Approximately ten tons of samples were taken at the Nos. 1, 2, and 3, exposures and hauled to the camp area in a power wagon.

The old mine was reopened by bulldozing and a power shovel in order to drain the water and make the old workings accessible for mapping. A section of tunnel, approximately 100 feet long, that penetrated slide material was entirely caved. To have reopened this tunnel by spiling would have proved very costly.

Stephen W. Zaldok

1201 North Division Street
Spokane 2, Washington
October 31, 1952

Madisonian Mining and Milling Co.,
Box 538,
Bozeman, Montana.

Subject: July-August invoice, contract Idm-E272

Gentlemen:

Enclosed is your copy of the subject invoice.

We have deducted $960.00 from the amount claimed for bulldozing. I understand you were informed that this deduction would be made in a conference with Mr. Weissenborn and Mr. Howard in Spokane on October 27.

Yours very truly,

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

cc: Wash. (2)
DF
DMEA-AD

Standard Form No. 1034a—Revised
Form prescribed by
Comptroller General, U. S.
September 7, 1950
(Gen. Reg. No. 51, Supp. No. 11)

PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

D. O. Vou. No. .....

Bu. Vou. No. DMA-331

U. S. Interior, Mines
(Department, bureau, or establishment)

Voucher prepared at Albany, Oregon 8/14/52
(Give place and date)

THE UNITED STATES, Dr., Payee's Account No. Idm-E 272

To Madisonian Mining and Milling Company,
(Payee)

Box 538, Bozeman, Montana
(Address) (City) (State)

PAID BY

(For use of Paying Office)

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary) Discount Terms	QUANTITY	UNIT PRICE Cost	UNIT PRICE Per	AMOUNT Dollars	AMOUNT Cts.
	June 1952	Per attached certified form MF-104 dtd. 7/7/52				467	90
PAYMENT: Complete ☐ Partial ☐ Final ☐		Use continuation sheet(s) if necessary					
Shipped from	to	Weight	Government B/L No.		Total	467	90

(Payee must NOT use this space)

Differences .....

Account verified; correct for 467 90

(Signature or initials) .....

Contract No. Idm-E 272 Date Req. No. Date Invoice Rec'd.

467.90

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 25 1952

MEMORANDUM

ACCOUNTING CLASSIFICATION (For completion by Administrative Office)

Appropriation, limitation, or project symbol	Appropriation title	Limit'n. or Proj't. Amount	Appropriation Amount
14X4401	Revolving Fund, Defense Production Act, Interior	467.90	467.90

Allotment symbol	Amount	Obligations liquidated	COST ACCOUNT Symbol	COST ACCOUNT Amount	OBJECTIVE CLASSIFICATION Symbol	OBJECTIVE CLASSIFICATION Amount

Paid by { Check No. ..... dated ....., 19....., for $..... } on Treasurer of the United States in favor of payee named above.
Cash, $....., on ....., 19.....

16—22900a-2

METHOD OF OR ABSENCE OF ADVERTISING

METHOD OF ADVERTISING

1. Advertising in newspapers Yes ☐ No ☐.
2. (*a*) Advertising by circular letters sent to ..... dealers.
   (*b*) And by notices posted in public places Yes ☐ No ☐.

   (If notices were not posted in addition to advertising by circular letters sent to dealers, explanation of such omission must be made below.).

ABSENCE OF ADVERTISING

3. Without advertising, under an exigency of the service which existed prior to the order and would not admit of the delay incident to advertising.
4. Without advertising in accordance with .....
5. Without advertising, it being impracticable to secure competition because of .....

.....

.....

.....

.....

(Here state in detail the nature of the exigency or circumstances under which the securing of competition was impracticable under 3 and 4)

NOTE.—The above form "Method of or Absence of Advertising" is to be used when purchases are made or services secured under proper authority without written agreement in any form. In case of a written agreement (formal contract, proposal, and acceptance, or less formal agreement) Standard Form No. 1036—Revised should be used for abstracting the method of or absence of advertising and award of contract. (See General Regulations No. 51, as amended.)

U. S. GOVERNMENT PRINTING OFFICE : 1950 O—75805

16—22000a-2

MF-104
(August 1951)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Contract No.
Idm-E

Name of Operator Madisonian Mining and Milling Company, Inc.
Docket No. DMA 2360
Total Contract Amount $ 24,400
Government Participation: 90 % Amount, $ 21,960
Distribution of Expenditures for Month of June 18 - June 30

467.90

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 25 1952

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

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

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

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

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

CERTIFICATION

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

Madisonian Mining and Milling Company (Name of Company) By M. G. Lester (Signature of Authorized Official) M. G. Lester

July 7, 1952 (Date) Secretary (Title)

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

16—64068-3

MONTHLY SUMMARY COST STATEMENT

List as Shown on Exhibits Attached to Contract

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
1. Fixtures and Improvements:						
(a) Facilities						
(b) Buildings	None					
(c) Fixtures						
2. Operating Equipment:						
(a) Purchased[1]						
	None					
(b) Rented[2]						
1 car 12 days @ $75.00 per month	$30.00		$30.00	—0—		
(c) Furnished by operator						
Gas, oil & maintenance @ $60.00 per month	$24.00		$24.00	—0—		
3. Rehabilitation and Repairs:						
(a) Facilities						
(b) Buildings						
(c) Installations						

Madisonian Mining and Milling Co., Inc.
ASBESTOS and ASBESTOS PRODUCTS

Phone 862 — P. O. Box 538
204 South Wallace Ave.,
Bozeman, Montana

To: Mr. C. A. Lester, President, the Madisonian Mining and Milling Co.

From: J. T. Dressler, Geologist.

Subject: Geologic Progress Report for June 1952 on the Company's Chrysotile Asbestos Deposits near Cliff Lake, Montana.

This report contains the results of geologic work, from June 13 to 30, on the chrysotile asbestos deposits of the Madisonian Mining and Milling Co. The company has 54 claims in Sections 24 and 25 of T.12S., R.2E.; and Sections 19 and 30 of T.12S, R.3E, in the Little Mile Creek unorganized mining district in Madison County, Montana.

The geological work to date is a part of Stage I in the Madisonian Mining and Milling Company's Exploration Contract with the Defense Minerals Administration. The results of this work is summarized below:

1. Reconnaissance of the mining claim boundaries to check on their locations and orientations relative to the serpentinized (asbestos) zones.

2. Horizontal and vertical control, by means of plane table and telescopic alidade, is in progress on the ridge north of Little Mile Creek valley. Geologic mapping and an enlarged topographic map (Scale 1"-500'), secured from the Department of the Interior, will be tied in to this survey.

Madisonian Mining and Milling Co., Inc.
ASBESTOS and ASBESTOS PRODUCTS

Phone 882 — P. O. Box 538
204 South Wallace Ave.,
Bozeman, Montana

To: C. A. Lester
From: C. F. Bressler
Subject: Geologic Progress Report for June (continued)

3. The No. 2 and No. 3 adits (on the ridge north of Little Mile Creek) have been mapped.

4. A preliminary survey of the upper main workings of the Asbestos Mine, in Little Mile Creek Valley, has been made.

5. Geologic mapping of prospect pits, adits, dumps, and surface exposures is in progress. These data are being recorded on maps and sections on a scale of 1"-500' for areal geologic mapping, and 1"-100' and 1"-50' for maps and sections of the mine workings.

It is too early to make any definite statements regarding the geology of the asbestos deposits, but certain generalizations, based on a cursory examination of the readily accessible mine workings in Little Mile Creek valley, and adits and surface exposures on the ridge to the north of Little Mile Creek, apparently bear upon the location of the asbestos veins.

1. Serpentinized zones, containing chrysotile asbestos, occur primarily in a folded sequence of sedimentary rocks consisting mostly of limestone with lesser amounts of dolomite. The Asbestos occurs only in the limestone near the contacts with a basic intrusive rock (Drabase (?) or Pendolite (/), which is nearly completely altered to serpentine.

2. The asbestos occurs mainly in zones in the limestone within 10 feet of the contact with the basic intrusive rock.

Madisonian Mining and Milling Co., Inc.
ASBESTOS and ASBESTOS PRODUCTS

Phone 862 — P. O. Box 538
204 South Wallace Ave.,
Bozeman, Montana

To: C. A. Lester
From: C. T. Bressler
Subject: Geologic Progress Report for June (continued)

3. The contact between the limestone and the basic intrusive is very irregular. It is formed in and near the mine workings in Little Mile Creek valley, and in the workings on the ridge.

4. The limestone - intrusive contact is not the only factor determining the location of asbestos, but the other factors are not clearly defined at the present time. It is hoped that current and future work will find these factors and thereby solve the geology of the asbestos deposits.

Respectfully submitted,

C. T. Bressler, Geologist

July 1, 1952

MONTHLY SUMMARY COST STATEMENT—Continued

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(d) Fixtures						
4. Labor[3]	$510.00		$510.00			
5. Supervision						
6. Supplies						
(a) Timber						
(b) Explosives						
(c) Repair Parts						
(d) Other						
7. Power						
8. Transportation						
9. Insurance						
(a) Fire						
(b) Public Liability						
(c) Workmen's Compensation	16.57		16.57			
10. Contract Work						
11. Other (specify)						
Total	$580.57		$580.57			
Deletions	58.06		58.06			
Adjusted totals	$522.51		$522.51			
Totals previously reported						
Totals to date				519.89		519.89

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

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

FOR GOVERNMENT USE ONLY

Checked by B Sander
Entered by
Approved by D R Irving
Amount approved for payment $467.90
Remarks

16—64068-3

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF JUNE

(Supply Data Below Applicable Only to Your Operations)

Item	Costs					Progress [4]				
	Wages [1] and salaries	Equipment [2]	Supplies	Other [3]	Total	Unit	Units this month	Units previously reported	Units to date	Units authorized by contract (Exhibit A)
Drifting										
Crosscutting										
Raising										
Shafts										
Winzes										
Drill holes										
Overburden										
Rehabilitation and preparation										
Geology and geophysics	$510.00		$24.00	$46.57	$580.57					
Trenching										
Sampling and assaying										
Roads and trails										
Test pits										
Other (specify)										
Totals	$510.00		$24.00	$46.57	$580.57					

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

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

MF-104
(August 1951)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Contract No.
Idm-E

mr Hearne

Name of Operator Madisonian Water and Milling Company, Inc.
Docket No. DMA 2360
Total Contract Amount $ 25,000
Government Participation: 50 % Amount, $ 21,360
Distribution of Expenditures for Month of June 1 - June 30

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 25 1952

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

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

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

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

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

CERTIFICATION

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

Madisonian Water and Milling Company
(Name of Company)

By M. G. Lester M. G. Lester
(Signature of Authorized Official)

July 7, 1952
(Date)

Secretary
(Title)

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

16—64068-3

MONTHLY SUMMARY COST STATEMENT

List as Shown on Exhibits Attached to Contract

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only		
				Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
1. Fixtures and Improvements:						
(a) Facilities						
(b) Buildings	None					
(c) Fixtures						
2. Operating Equipment:						
(a) Purchased[1]						
	None					
(b) Rented[2]						
1 car 12 days @ 75.00 per month	30.00		30.00	—0—		
(c) Furnished by operator						
Gas, oil & maintenance 60.00 per month	60.00		60.00	—0—		
3. Rehabilitation and Repairs:						
(a) Facilities						
(b) Buildings						
(c) Installations						

16—64068-3

Madisonian Mining and Milling Co., Inc.
ASBESTOS and ASBESTOS PRODUCTS

Phone 862 — P. O. Box 538
204 South Wallace Ave.,
Bozeman, Montana

To: Mr. C. A. Lester, President, the Madisonian Mining and Milling Co.

From: W. T. Dressler, Geologist.

Subject: Geologic Progress Report for June 1952 on the Company's Chrysotile Asbestos Deposits near Cliff Lake, Montana.

This report contains the results of geologic work, from June 13 to 30, on the chrysotile asbestos deposits of the Madisonian Mining and Milling Co. The company has 54 claims in Sections 24 and 25 of T.12S., R.2E.; and Sections 19 and 30 of T.12S, R.3E, in the Little Mile Creek unorganized mining district in Madison County, Montana.

The geological work to date is a part of Stage I in the Madisonian Mining and Milling Company's Exploration Contract with the Defense Minerals Administration. The results of this work is summarized below:

1. Reconnaissance of the mining claim boundaries to check on their locations and orientations relative to the serpentinized (asbestos) zones.

2. Horizontal and vertical control, by means of plane table and telescopic alidade, is in progress on the ridge north of Little Mile Creek valley. Geologic mapping and an enlarged topographic map (Scale 1"-500'), secured from the Department of the Interior, will be tied in to this survey.

Madisonian Mining and Milling Co., Inc.
ASBESTOS and ASBESTOS PRODUCTS

Phone 862 — P. O. Box 538
204 South Wallace Ave.,
Bozeman, Montana

To: C. A. Lester
From: C. F. Bressler
Subject: Geologic Progress Report for June (continued)

3. The No. 2 and No. 3 adits (on the ridge north of Little Mile Creek) have been mapped.

4. A preliminary survey of the upper main workings of the Asbestos Mine, in Little Mile Creek Valley, has been made.

5. Geologic mapping of prospect pits, adits, dumps, and surface exposures is in progress. These data are being recorded on maps and sections on a scale of 1"-500' for areal geologic mapping, and 1"-100' and 1"-50' for maps and sections of the mine workings.

It is too early to make any definite statements regarding the geology of the asbestos deposits, but certain generalizations, based on a cursory examination of the readily accessible mine workings in Little Mile Creek valley, and adits and surface exposures on the ridge to the north of Little Mile Creek, apparently bear upon the location of the asbestos veins.

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2. The asbestos occurs mainly in zones in the limestone within 10 feet of the contact with the basic intrusive rock.

Madisonian Mining and Milling Co., Inc.
ASBESTOS and ASBESTOS PRODUCTS

Phone 862 — P. O. Box 538
204 South Wallace Ave.,
Bozeman, Montana

To: C. A. Lester
From: C. T. Bressler
Subject: Geologic Progress Report for June (continued)

3. The contact between the limestone and the basic intrusive is very irregular. It is formed in and near the mine workings in Little Mile Creek valley, and in the workings on the ridge.

4. The limestone - intrusive contact is not the only factor determining the location of asbestos, but the other factors are not clearly defined at the present time. It is hoped that current and future work will find these factors and thereby solve the geology of the asbestos deposits.

Respectfully submitted,

C. T. Bressler, Geologist

July 1, 1952

MONTHLY SUMMARY COST STATEMENT—Continued

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(d) Fixtures						
4. Labor[3]	$510.00		$510.00	503.32		
5. Supervision						
6. Supplies						
(a) Timber						
(b) Explosives						
(c) Repair Parts						
(d) Other						
7. Power						
8. Transportation						
9. Insurance						
(a) Fire						
(b) Public Liability						
(c) Workmen's Compensation	16.57		16.57	16.57		
10. Contract Work						
11. Other (specify)						
Total	$530.57		$530.57			
Deletions	58.06		58.06			
Adjusted totals	$522.51		$522.51			
Totals previously reported						
Totals to date				519.89		

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

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

FOR GOVERNMENT USE ONLY

Checked by B Sanders
Entered by
Approved by D R Young
Amount approved for payment $467.90
Remarks

16—64068-3

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF _____

(Supply Data Below Applicable Only to Your Operations)

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

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

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

DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMEA ~~XXXX~~ Docket No. 2360

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

EXPLORATION PROJECT

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip
(Other copies sent to USBM, USGS, & Reg. II)

To:	CODE 600 Rm. 4637	Date	2-4-52
To:	Mr. Honke	Date	3/3/52
To:	Operating Comm.	Date	3-7-52
To:	Operating Com.	Date	3-21-52
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

OFFICIAL FILE COPY
O. M. E
RECEIVED NOV 15 1961

DATE	INITIALS	CODE
		100
11/15	JEP	110
		120
11/16		800
		~~500~~
	Received	500
		220

No. 157 Howard Street
Spokane 4, Washington
November 13, 1961

Memorandum

To: Stephen R. Wilson, Supervising Mining Engineer
Division of Mineral Resources, Bureau of Mines
Region III

From: Acting Field Officer, OME, Region I

Subject: Cliff Lake asbestos property, Little Mile Creek
Madison County, Montana

T-24

The only information regarding DMEA and OME projects that* are authorized to release to the public is:

Name of Operator
Location - State or County
Mineral Commodity
Total Estimated Cost
Amount of Government Participation

The DMEA had a contract with Madisonian Mining and Milling Company whose last known address is Box 538, Bozeman, Montana. The property involved is located in sec. 25, T. 12 S., R. 2 E. P.M., Madison County, Montana. The commodity was asbestos. The total estimated cost of the contract was $24,400.00, of which Government participation was 90 percent or $21,960.00.

This was executed early in the DMEA program and apparently was drawn up on the basis of information in the application without a field examination.

Another request for information on this property was recently received from a California company who stated that Charles Lester, former owner of the claims and president of Madisonian Mining and Milling Company, was deceased. C. T. Bressler, manager during the period of the DMEA contract, is also deceased.

I regret I am unable to give you any additional information.

*we

D. R. MacLaren

DRMacLaren:mls (Re: DOCKET DMEA-2360 (Asbestor), Madisonian Mining & Milling Co., Little Mile Creek Asbestos Deposit, Madison County, Montana,
cc: OME Nolan, Hobbs, Guild Contract Idm-E272)
Reading copies to:

OFFICIAL FILE COPY
O. M. E
RECEIVED MAR 17 1961

DATE	INITIALS	CODE
3-17	gad	770
3/20	[illegible]	800
3/20	[illegible]	500
		170
		220

No. 157 Howard Street
Spokane 4, Washington
March 14, 1961

Mr. C. J. Sarno, President
Yellowstone Asbestos Co., Inc.
P. O. Box 745
Englewood 5, California

Dear Mr. Sarno:

Your letter of March 8, 1961, addressed to E. M. Shelton, Regional Director, U. S. Bureau of Mines, Albany, Oregon, has been turned over to us for reply. The Office of Minerals Exploration is the assessment agency to the Defense Minerals Exploration Administration.

The only information that regulations permit us to release to the public are:

Name of Operator

Location - state and county

Mineral commodity

Total estimated cost

Amount of Government participation

All other information pertaining to a project is considered confidential and is for the sole use of the Government.

I understand that C. T. Brensler was the victim of a fatal accident about a year ago. As C. A. Lester is also deceased, the only suggestion I can make is that you might try to locate someone of his former associates in Bozeman, Montana, who might be able to locate the company records.

I sincerely regret that I can be of so little help to you.

Sincerely yours,

D. R. Masterson
Acting Field Officer, OME
Region I

cc: R. E. Appling, Jr.
USBM, Spokane

Otley M. Bishop
USBM, Albany, Oregon

cc: OME(2) w/cys incoming
Director
Econ. Geol.
BMN

(Re. DMEA-2360 (Asbestos), Montanian Mining & Milling Co.,
Little Mile Creek Asbestos Deposit, Madison County, Montana,
Contract Ida-2272)

OFFICIAL FILE COPY
O. M. E
RECEIVED MAR 17 1961

DATE	INITIALS	CODE

March 8, 1961

S. M. Shelton
Regional Director
U.S. Bureau of Mines
P.O. Box 492
Albany, Oregon

Dear Mr. Shelton:

Our company has leased and acquired claims in the state of Montana, located in Sec25, T.12, S.R. 2 E, approximately fifty miles South of Ennis, Montana. Asbestos, namely the product which we are interested in mining, has from our investigation, interested us to further develop these claims.

Historical background on these claims are not to abundent. The Montana School of Mines At Butte has supplied us with their report on these claims. This more or less covers the date of discovery and sketchy information as to the type, grades and past production of previous operations.

My investigation of recent date, shows that these claims were acquired by a Mr. Charles Lester of Bozeman, in the year 1950, or before, and that Mr. Lester was the President of the Madisonian Mining and Milling Company of Bozeman, Montana, that Mr. Lester, or his company was authorized to receive a loan under the D.M.E.A.. Said loan was granted and references made in Bulletin 552, of Bureau of Mines book, " The Asbestos Industry," by Oliver Bowles, page 22 state of Montana. I have learned further that a considerable amount of development work and exploration was done in the year 1958. A geologist by the name of C.T. Bressler was in charge of this work from June 18,1958 to September 1, of that year and that Mr. Bressler was replaced by Mr. S. W. Zolock, and that excellent geologic and topographic maps of the area were made of individual workings and deposits, that core drilling was done and other information was prepared for his company.

I have been unable to locate the geologigist C.T. Bressler of S.W. Zolock. Perhaps you can help me locate them. Mr. Lester is deceased and I have written to his widow but to date have received no reply. However, it is possible that she no longer lives in the Bozeman area. I am wondering whether or not your office may have the p records of the original transactions, or if by chance the D.M.E.A. may have required that all findings and reports, maps, etc. be filed to substantiate the expenditures, governed under the requirements of the loan granted to Mr. Lester by the D.M.E.A..

We have engaged a geological and mining engineering firm to investigate these claims this coming may. It would be a great help and assistance to us if we were able to acquire past geological and technical information acquired on the past operations. If your office does not have this information could you advise me as to how this information may be obtained.

I would appreciate any help you can give me, and would be most grateful for an immediate reply.

Thank you.

Yours very truly,

C.J. Berne

C.J. Berne
President

CJB/es

Office of Mineral Exploration
Spokane, Washington

Via
Air mail

FILE COPY
SURNAME:

Robertson
Hook

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
600
WASHINGTON 25, D. C.

June 11, 1953

m

Administrator

s: Nonmetallic Minerals Division

Subject: A closing review - Docket No. DMEA-2360 - Asbestos
Contract No. Idm-E272 - March 11, 1952
Property: Little Mile Creek Asbestos Deposit
54 unpatented lode claims
Operator: Madisonian Mining and Milling Company
Box 538, Bozeman, Montana
(C. A. Lester, President)
Project: Mostly geological reconnaissance
Amount approved: $24,400.00
Amount spent - accepted cost: $10,052.53
Government share 90% - $9,047.28
Work started June 18, 1952
Work terminated October 19, 1952
Stage I completed but not Stage II.

Closing: The project was terminated before completion of Stage II. No discovery of consequence. No discovery certified. No closing letter to Operator.

Docket Summary:

2/1/52 Received application Form MF-103, dated 1/3/52. Memorandum-Meissenborn to Administrator explaining application project.

2/4/52 Application acknowledged.

2/6/52 Memorandum - Dr. Oliver Bowles to Houk. Recommends field examination.

2/8/52 Memorandum - D. H. Kupfer, Geological Survey to Nonmetallic Minerals Division. Requests additional information.

3/3/52 Contract drafted by Chief Counsel.

3/21/52 Contract Idm-E272 sent to Region II for signatures. Approved amount $24,400.00.

4/14/52 Executed contract returned from Region II.

8/14/52 Received Routine Inspection Report (2 pages) by W. B. Meyers, Geologist, Region II, U.S.G.S. Memo - Interim Report (1 page) by D. R. Irving, USBM, Region II.

10/27/52 Received Routine Inspection Report by John C. McNabb, Geologic mapping and data. Reported Stage I completed. Recommends that Stage II not be completed.
Received Geologic Investigation, a comprehensive 6 page report by C. T. Bressler, geologist for company.

FILE COPY
SURNAME:

Robertson
Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION
600
WASHINGTON 25, D. C.

June 11, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A closing review - Docket No. DMEA-2360 - Asbestos
Contract No. Idm-E272 - March 11, 1952
Property: Little Mile Creek Asbestos Deposit
54 unpatented lode claims
Operator: Madisonian Mining and Milling Company
Box 538, Bozeman, Montana
(C. A. Lester, President)
Project: Mostly geological reconnaissance
Amount approved: $24,400.00
Amount spent - accepted cost: $10,052.53
Government share 90% - $9,047.28
Work started June 18, 1952
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Docket Summary:

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Received Geologic Investigation, a comprehensive 6 page report by C. T. Bressler, geologist for company.

11/3/52 Received report on beneficiation test on asbestos samples, Head 265. Report & test by Paul H. Flyd, Head, Minerals Dressing Section, USBM, Albany, Oregon. Adverse report - chrysotile insufficient to warrant economic consideration.

12/8/52 Received Final Report, dated 10/30/52, by Stephen W. Zoldok, company engineer. Received MF-104 for Sept. and Oct. Work completed. Total spent $10,052.53. Audit Report, dated Nov. 14, 1952 by Robert M. Hull, Auditor. Accepted cost is $10,052.53 of which the Government participation @ 90% is $9,047.28.

5/20/53 Final Report transmitted from Field Team, Region II. Examining Engineers, T. E. Howard, USBM, and Gerald W. Fuller, USGS. It is the opinion of the Field Team that no additional exploration is warranted and that project should not be certified for discovery.

Cost of Project Work:

The original contract outlined a project estimated to cost $24,400.00 but was terminated after $10,052.53 had been spent.

The final audit, dated November 14, 1952, by Robert M. Hall, Auditor, disclosed the following facts in regard to the amount to be paid the contractor:

Total cost as billed by contractor			$11,014.09
Exceptions (see Audit Report for details):			
During this audit	$9.10		
Prior to this audit	960.00	$969.10	
Less reinstatement		7.54	961.56
			$10,052.53

The contract called for a 90% participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Nine thousand forty seven and 28/100 Dollars,

$9,047.28

is valid and proper.

Resume:

A resume is best provided by the Summary contained in the Final Report by Field Team, T. E. Howard, Mining Engineer and Gerald W. Fuller, Geologist.

"A DMEA contract in the amount of $24,400 was entered into on March 11, 1952, with the Madisonian Mining and Milling Co. for the purpose of exploring chrysotile asbestos occurrences in the Little

Mile Creek area, Madison County, Montana. Actual work under the contract started June 18, 1952 and was terminated October 19, 1952. As exploration work progressed, it became increasingly evident that no worthwhile discovery would be made. The work was terminated on the expiration date of the contract. The contract was not extended because, in the opinion of the Field Team, the results of the exploration did not justify further work.

"Work under the contract consisted of surveying, geologic mapping, sampling, metallurgical testing, access road building, and trenching of limestone-gabbro contacts. Units of work completed consisted of 3 miles of access roads, 5300 lineal feet of bulldozer trenching (298 hours bulldozer time), metallurgical testing of the ore by the Bureau of Mines laboratory at Albany, Oregon and the mapping of an area 1½ by 2 miles, comprising a set of four maps.

"In the opinion of the Field Team, no additional exploration of the asbestos deposit is warranted, for although the limestone-gabbro rocks are exposed over a large area, the occurrences of chrysotile asbestos along exposed contacts are sporadic and small, not lending themselves to economic mining. Furthermore, detailed inspection revealed that although in places the rock contained as much asbestos as some of the Arizona deposits now being worked, the asbestos was not concentrated in beds from which it could be hand-sorted but was disseminated through the rock in such a way that a clean product could not be made. Metallurgical testing demonstrated a final product of poor grade spinning fiber because of contaminating minerals including aragonite, picrolite, and antigorite.

"The project was unsuccessful and no discovery should be certified."

Comment:

The Nonmetallic Minerals Division concurs with the field team's appraisal that no worthwhile discovery was probable and this was confirmed by the tests made on 500 lbs. of material by the Metallurgical Laboratory, Bureau of Mines, Albany, Oregon. This Division, therefore, recommends that no certification of discovery be made.

Because of the long length of elapsed time since termination of work and filing of the final report no closing letter will be sent to the Operator.

JTRobertson:gad 6/11/53
Copy to: Admr. R. File
Docket File
Mr. Houk

J. T. Robertson
Nonmetallic Minerals Division

✓ Audited A.C. 11-14-54 W[redacted]ALYSIS SHEET — DMEA PROJECT [redacted] ✓ Actual Cost

☐ Certified Analysis as of 12-6-54 ☐ Agreed Unit Costs
Incl. Voucher for Sept-Oct. 1954

Name Madisonian Mining and Milling Co. Docket No. 2360

State Montana Commodity Asbestos Idn.-E No. 272

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting	None specified	6183.00	0	0	0
Raising					
Shafts					
Winzes					
Drilling (Specify)					
Surface Excavation		3960.00		2554.07	2554.07
Underground Excavation					
Roads and Trails		3960.00		3092.43	3092.43
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation Exchanged by Stand Ass.		449.94		449.94	449.94
New Building, Improvements, etc.					
Other (Specify) Geologic Mapping-1 Surveying Sampling Metallurgical Testing		9,847.06		3956.09	3956.09
Totals		24,400.00		10052.53	10052.53

Prepared by [signature]

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/3	Houk	600
4/3	Selfridge	120
		~~110~~
		~~100~~
		220

600

Hon. Mike Mansfield
United States Senate
Washington 25, D. C.

APR 3 1959

Dear Senator Mansfield:

This is in reply to your letter of March 27, 1959, asking if the information pertaining to the exploration and study of the Little Mile Creek Area in Madison County, Montana, under the DMEA program, may be divulged and under what circumstances.

Information supplied in connection with an application and the operator's analysis of the work performed under a contract are released only with the consent of the parties who submitted the information. In this case written consent from Mr. Doyle S. Potts or Mrs. M. G. Lester (former Company officials) to release the information will be acceptable. We have no definite addresses for either, but presume that they reside near Bozeman, Montana.

The evaluation of the results of the exploration and the conclusions of the DMEA are never divulged to the operator or successor companies. This type of information is made available for inspection to individual Members of Congress and to appropriate Committees of Congress for official consideration with the understanding that the information is of a privileged character and is not for public dissemination.

The issuance of a certification of discovery or development is in a broad sense an indication that the Government considers production may be made as a result of the work completed under the contract, and in that event, the Government retains a lien on the land and any production therefrom for a period usually of ten years. A certification of discovery or development was not issued under the contract with the Madisonian Mining and Milling Company.

With regard to an additional source of information on the property, the United States Bureau of Mines IC-6790, June, 1934, states on Page 3:

43683

"Montana.-Chrysotile asbestos occurs near Cliff Lake, southern Madison County. It is associated with serpentine in limestone close to a diabase contact. Development of deposits began in 1917, and a mill was under construction in 1923 and 1924, but commercial production has been very small. Samples of the fiber examined by the Bureau of Mines were weaker and more brittle than Canadian or Arizona chrysotile."

In the Montana Bureau of Mines and Geology, 1948, a report on the property states in part:

"The asbestos occurs in narrow veinlets cutting serpentine and marble. Most of the veinlets are from 1/16 to 1/2 inch in width, and they commonly extend four inches to a foot or two before pinching out. Numerous veinlets may occur in a zone of serpentine running roughly parallel to each other and to the zone. Some veinlets appear to cut pure marble, but there may have been massive serpentine present before the growth of asbestos. The fibers in the asbestos lie at right angles to the vein walls, and extend completely across the veinlets. The total amount of serpentine in proportion to marble is small, perhaps one or two percent, and the amount of asbestos in proportion to massive serpentine is probably equally as small. The failure of the mine appears to have been due mainly to the small amount of asbestos present; however, as far as known to the writer, no long fiber asbestos is present."

It is my hope that this explanation will serve to clarify our policy with regard to divulging information submitted by applicants and to the evaluation of the results of the work accomplished under DMEA contracts. This policy is followed purposely to protect the interests of the applicants and the operators as well as that of the Government. Please let me know if further information concerning the matter is desired.

Your constituent's correspondence is enclosed.

Sincerely yours,

(signed) FRANK E. JOHNSON (FH)

Acting Director

Enclosures 5

LGHouk:gad 4/3/59

Copy to: Dir. R. File
Mr. Houk
Docket No. DMEA-2360

THEODORE FRANCIS GREEN, R. I., CHAIRMAN
J. W. FULBRIGHT, ARK.
JOHN SPARKMAN, ALA.
HUBERT H. HUMPHREY, MINN.
MIKE MANSFIELD, MONT.
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RUSSELL B. LONG, LA.
JOHN F. KENNEDY, MASS.
ALEXANDER WILEY, WIS.
H. ALEXANDER SMITH, N. J.
BOURKE B. HICKENLOOPER, IOWA
WILLIAM LANGER, N. DAK.
WILLIAM F. KNOWLAND, CALIF.
GEORGE D. AIKEN, VT.
HOMER E. CAPEHART, IND.

CARL MARCY, CHIEF OF STAFF
C. C. O'DAY, CLERK

United States Senate

COMMITTEE ON FOREIGN RELATIONS

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 1 1959

DATE	INITIALS	CODE
4-1	C	220
4/1	Hank	600

MDM

March 27, 1959

Mr. Frank E. Johnson, Acting Director
Office of Minerals Exploration
Department of the Interior
Washington 25, D. C.

Dear Mr. Johnson:

Enclosed are copies of correspondence I have received from Mr. Thomas G. McGrath, Secretary-Treasurer, Mineral Mining & Milling Company, Inc., Box 41, Bozeman, Montana.

You will note after you have read the correspondence that Mr. McGrath is interested in obtaining information pertaining to an exploration and study made of the chrysotile occurence in the Little Mile Creek area in Madison County, Montana. I have noted from the correspondence that the information desired is held in confidence and cannot be released.

I would appreciate being advised if this kind of information is ever divulged and under what circumstances. Also, I would appreciate any suggestions you may have as to where Mr. McGrath might obtain assistance since the original Company apparently has been dissolved and the Company's records are not available. Please return the enclosures with your reply.

Thanking you and with best personal wishes, I am

Sincerely yours,

Mike Mansfield

MME Form 7
(10-58)

OFFICIAL

Date	Surname	Code
		600
3/3	Selfridge	120
		110
		100
		220

600

Hon. Mike Mansfield
United States Senate
Washington 25, D. C.

Dear Senator Mansfield:

This is in reply to your letter of March 27, 1959, asking if the information pertaining to the exploration and study of the Little Mile Creek Area in Madison County, Montana, under the DMEA program, may be divulged and under what circumstances.

Information supplied in connection with an application and the operator's analysis of the work performed under a contract are released only with the consent of the parties who submitted the information. In this case written consent from Mr. Doyle S. Potts or Mrs. M. G. Lester (former Company officials) to release the information will be acceptable. We have no definite addresses for either, but presume that they reside near Bozeman, Montana.

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The issuance of a certification of discovery or development is in a broad sense an indication that the Government considers production may be made as a result of the work completed under the contract, and in that event, the Government retains a lien on the land and any production therefrom for a period usually of ten years. A certification of discovery or development was not issued under ~~this~~ the contract. with Maxwell Mary & [illegible]

With regard to an additional source of information on the property, the United States Bureau of Mines IC-6790, June, 1934, states on Page 3:

43683

So. 157 Howard Street
Spokane 4, Washington

March 19, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 23 1959

DATE		
3/23	C	
3/25	Hook	220
		600
		225

Mr. Thomas G. McGrath
Secretary-Treasurer
Mineral Mining and Milling Co., Inc.
Box 41
Bozeman, Montana

Dear Mr. McGrath:

We regret to inform you that we cannot give you the information requested in your letter of March 13. The Office of Minerals Exploration, which you quote, is the successor to the Defense Minerals Exploration Administration.

I wish that we could assist you but the reports that we made to DMEA (now OME) concerning the work done under the DMEA contract are considered confidential and we are not authorized to release them.

Concerning the question of ownership which you mention in the next to the last paragraph, the only information we have is a statement in the application for DMEA aid that Madisonian Mining and Milling Company controlled by right of ownership the claims on which they desired to explore.

Sincerely yours,

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

cc: OME (2) w/2 cys incoming
USBM (2) "

(Re Docket No. DMEA-2360 - Asbestos, Madisonian Mining and Milling Company, Little Mile Creek Asbestos Deposit, Madison County, Montana, Contract Idm-E272.)

al Ce
Mac
WHM
BME

Jan. 13, 19
[illegible]
[illegible], Montana.

United States Geological Survey,
Spokane, Washington.

Dear Sir::

I am writing to you to seek your help in securing some data and information on an asbestos deposit near Cliff Lake, Madison County, Montana.

To date, the following information has been secured. ((This is taken from a reply of United States Department of Interior—Office of Minerals Exploration—Washington 25, D.C.))

Quote" On March 11, 1952, The Defense Mineral Exploration Administration entered into a contract in the amount of $24,400 with the Madisonian Mining and Milling Co., Box 438 Bozeman, Montana, to explore the chrysotile occurence in the Little Mile Creek area in Madison County, Montana. For information that you may desire, we suggest that you contact the Company. The Government's evaluation of the work is considered confidential and not made available to the public.".

Now let me present my problem and desire to secure what data and information is possible. To begin with, We have a very fine lease and option to purchase this asbestos property and have gone as far as to interest some of the biggest companies in the United States and Canada in the deposit. We learned of this DMEA project when one of the companies interested and they asked for the reports —before and after the project was finished. This we did not have and as far as the Madisonian Mining & Milling Company is concerned—they are no longer in existence. All of the fine engineer and geologist reports, maps, test work, assays and spectrograph work, correspondence has either been ""stolen or mis-placed"" and a person would have to know the methods employed by that company to understand the quotation marks.
This is also true of other companies that were handled the same way so that the job of getting all of the properties back on an even keel has been extremely difficult. It is very dis-courageing because all of the properties have such a great potential future. I will add that there were a number of diamond drill holes placed on the property at Little Mile Creek but again the logs cannot be located .

I was employed by the old company for over two years, doing a lot of exploration test work so I know the property fairly well and after the death of the old company's president secured this lease and option on the property. I have talked to the owners, after this DMEA project was uncovered and they all have informed me that— It was also news to them and that they has never signed any papers for such a project, so that it puts a queer light on the entire property. However, it comes back to the operations of the old company.

Madisonian was the owner? Lease & option? Did they sign what they signed?

I will thank you in advance for this data and information and as such will treat it with confidence. Rest assured that with this data and information we will have a very fine presentation for this excellent asbestos property.

Very truly yours,

[illegible], Sec.-Treas. of
Mineral Mining & Milling Company, Inc.

RECEIVED
MAR 16 1959
U.S.G.S.
[illegible]

Form 7
-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/10	Houk	600
3/11	Selfridge	120
		110
		220

600

Mr. E. Robert Adam
Room 2710
52 Wall Street
New York 5, New York

MAR 11 1959

Dear Mr. Adam:

Reference is made to your special delivery letter of March 3, 1959, requesting additional information on DMEA-2360, Contract No. Idm-E272, Madisonian Mining and Milling Company.

We note you have purchased the property, that the company files are not available, and that you will attempt to put this property into production.

We regret that we are unable to furnish additional information about this property. The information gathered by our field staff is for the purpose of protecting the Government's interest. We do not make it available outside the Government as that would have the effect of putting our engineers and geologists in competition with private industry. As to the information supplied us by the Madisonian Mining and Milling Company, we will be glad to furnish you with copies of such information if we receive written consent from a properly authorized representative of the company. There is no Government lien against the property as no certification of discovery or development was made.

Sincerely yours,

(signed) FRANK E. JOHNSON (pb)

Acting Director

LGHouk/FEJohnson/gad/fw-3/10/59
cc: Dir. R. File
Mr. Houk
DMEA-2360, Idm-E272

8623

ROOM 2710
52 WALL STREET
NEW YORK 5, N. Y
WHITEHALL 4-2595

SPECIAL DELIVERY

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 4 1959

DATE	INITIALS	CODE
3/3/59	J.-9.	225
3/4	FEJ	210
		600
		225

March 3, 1959

Mr. Frank E. Johnson, Acting Director
Office of Minerals Exploration
U. S. Department of the Interior
Washington 25, D.C.

Dear Mr. Johnson:

Thank you very much for your letter of February 27, 1959 with enclosure.

We are the new owners of the property named in your letter as the subject of your contract with the Madisonian Mining and Milling Co., dated March 11, 1952 and therefore feel that we are entitled to this information secured by public funds in a DMEA loan on this property.

The president of Madisonian has died and the existing file is not available at present. We certainly believe that our effort to attempt to put this asbestos deposit into production, which will benefit the mining people of this area, should certainly be looked upon upon with favor by the Department of the Interior.

We also would like to have in writing from you a statement as to whether there is a lien against this property due to the DMEA loan that prevailed in 1952, remembering the fact that we are now the new owners and have no association with the previous owners, namely the Madisonian Mining and Milling Company.

We would appreciate hearing from you as early as possible.

Sincerely yours,

E. Robert Adam

E. Robert Adam

ERA:jer

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/26	Houk	600
2/27	Lefgadge	120
		~~110~~
		220

600

Mr. E. Robert Adam
Room 2710
52 Wall Street
New York 5, New York

FEB 27 1959

Dear Mr. Adam:

Reference is made to your letter of February 17, 1959, addressed to the Defense Minerals Exploration Administration, requesting available information on an asbestos deposit near Cliff Lake, Madison County, Montana.

On March 11, 1952, the Defense Minerals Exploration Administration entered into a contract in the amount of $24,400 with the Madisonian Mining and Milling Co., Box 538, Bozeman, Montana, to explore the chrysotile occurrence in the Little Mile Creek Area in Madison County, Montana. For information that you may desire, we suggest that you contact the Company. The Government's evaluation of the work is considered confidential and not made available to the public.

Please note that the Defense Minerals Exploration Administration has now been succeeded by the Office of Minerals Exploration. We are enclosing our regulationson the new program which may be of interest to you.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

Enclosure

LGHouk:gad 2/26/59
Copy to: Dir. R. File
Mr. Houk
DMEA-2360, Idm-E272

8623

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 18 1959

DATE	INITIALS	CODE
2/18	J.G.	225
2/20	[illegible]	200
2/26	[illegible]	600
		225

ROOM 2710
52 WALL STREET
NEW YORK 5, N. Y
WHITEHALL 4-2595

BMEA-2360
E-7V

February 17, 1959

Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Gentlemen:

Re: Cliff Lake Asbestos Deposit
in Madison County, Montana.

I am informed that in about 1953 you assisted in the development of the above property located in the southern part of the county near Cliff Lake.

My associates and myself are contemplating further development of this property, should investigation warrant it, and we would therefore very much appreciate any information you could give us in reference thereto.

With kind regards, I am

Sincerely yours,

E. Robert Adam

E. Robert Adam

ERA/ja

COPY

March 4, 1955

Memorandum

To: Mr. Jay L. Chambers

From: Lawrence G. Houk

Subject: Closing dockets

The Nonmetallic Minerals Division have reviewed the following contracts and do not intend to make certifications of discovery or development:

Idm-E52	DMEA-1212	Idm-E	DMEA-
40	1213	217	1969
13	1679	244	1955
73	519	253	2134
74	1390	257	2077
78	1664	~~272~~	2360
93	812B	288	2344
97	1224	324	2255
121	1517	344	2156
124	1318	373	2439
125	1720	411	2528
129	1665	430	2524
134	1732	433	2620
140	1813	444	2646
179	1122	450	2681
180	1250	480	2725
191	1914	497	2778
195	1812	507	2840
198	1929	518	2785
211	1721	524	2909
216	2104	543	2950
		565	3030

Patent No. [illegible]

Memorandum

To: Mr. [illegible] Chambers

From: Lawrence H. [illegible]

Subject: Closing [illegible]

The Hermosa Minerals Division has reviewed the following conditions and do not intend to make certification of discovery or development:

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
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13

1201 N. Division St.
Spokane 2, Washington

VIA AIR MAIL

November 19, 1953

Mr. Frank A. Archambo
38 No. 16th Ave.
Hopkins, Minnesota

Subject: Madisonian Mining & Milling Company
Interstate Products Company
Bozeman, Montana

Dear Mr. Archambo:

Reply to your air mail letter of November 4, 1953, directed to Mr. H. E. Valin, Chief, Mining Division, Region II, regarding the Karst and Madisonian properties, has been delayed awaiting his return from an extended trip. Your air mail letter of November 18, on the same subject, indicates the matter is urgent, so I shall reply in his behalf to the best of my ability.

Our information indicates that the companies in question may be associated in some way.

Last year the Madisonian Mining and Milling Company completed a Defense Minerals Exploration Administration contract in which the work consisted of surveying, geologic mapping, sampling, metallurgical testing, access road building, and trenching. It is contrary to the policies of the Bureau of Mines and DMEA for results of exploration to be released to the public without written consent of the owner of the property.

I believe the information you wish should properly be obtained from the Madisonian Mining and Milling Company, Box 538, Bozeman, Montana.

Attached to this letter I am returning your one dollar bill.

Sincerely yours,

J. B. Bardill, Acting Chief
Mining Division, Region II

cc: DMEA, Wash. (2)
USGS (2)

(Docket No. DMEA 2360 (asbestos, Contract Idm-R272)

GAN Associates, Inc. Public Relations

2055 Rand Tower
Minneapolis, Minnesota

November 4, 1953

Chief M. E. Volin
Mining Division, Region II
Bureau of Mines
1201 N. Division St.
Spokane, Washington

Dear Chief:

I am investigating some property for an investor, and therefore have not dictated this request to a secretary, at the investor's request.

I would like information as follows: at Bozeman, Montana one Charles Lester has what is known as the Karse Property, of some 450 acres, also the Madisonian property of some 1150 acres, that is supposed to have asbestos on it. Please forward me all information as to asbestos, its depth, etc.

Enclosed is a self addressed envelope, as well as one Dollar to cover any mailing costs.

Any and all assistance you can furnish me will be appreciated.

Respectfully yours,

Frank A. Archambo

C O P Y

38 No. 16 Ave.
Hopkins, Minnesota
Nov. 18, 1953

Mr. M. E. Volin
Chief, Bureau of Mines
1201 Division St.
Spokane, Washington

Dear Sir:

Some two weeks ago I wrote you for information on chrysotile asbestos in Madison County, Montana by Madisonian Mining and Milling Co. of Bozeman, Montana, and also Interstate Products Co. of Bozeman on asbestos.

Please send this and any other information that you may have, as soon as possible.

Yours truly,

F. A. Archambo

P.S. I am anxiously waiting for this information.

C O P Y

600

FILE COPY
SURNAME:

Selfridge

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

June 16, 1953

N. S. in R. v. R.

Memorandum

To: Administrator

From: George C. Selfridge
Special Assistant

Subject: Closing review - Docket No. DMEA-2360 - Asbestos
Little Mile Creek Asbestos Deposit
Madisonian Mining and Milling Company
Madison County, Montana
Contract No. Idm-E372

A review of the subject docket shows that the exploration project contract was never formally terminated by the execution of a termination notice. However, it appears that the Operator and the Field Team must have reached an oral agreement to terminate the project. On November 12, 1952, Mr. Weissenborn informed Mr. Hindman, Certifying Officer, DMEA, Region II, that work under the contract had been completed to the satisfaction of the Government. He requested that the Operator's final invoice be accepted for vouchering and payment.

The Contract Administration and Audit Division closed out the account on December 9, 1952. The Operator probably received a copy of the final audit shortly after that date.

Mr. Hafflund believes it best that no closing letter be sent to the Operator as he submitted his final report last October and thus probably believes that the matter is entirely settled.

GCSElfridge/esf

CC to: Docket
Admr. Read. File
Mr. Houk
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

May 20, 1953

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

Re: Docket No. DMEA-2360 (Chrysotile Asbestos)
Madisonian Mining and Milling Company
Madison County, Montana
Contract Idm-E272

Dear Mr. Selfridge:

Enclosed are four copies of the Field Team's Final Report on the subject property, prepared by T. E. Howard, U. S. Bureau of Mines, and Gerald W. Fuller, U. S. Geological Survey.

It is the opinion of the examining team that no additional exploration of the asbestos deposit is warranted and no discovery should be certified; the Field Team concurs with these conclusions.

By DMEA Field Team, Region II

M. E. Volin, Acting Exec. Officer
(U. S. Bureau of Mines)

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

Enclosure
cc: USBM (2)
Myers

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAY 25 1953

Reviewed by
DMEA OPERATING COMMITTEE
5-29-53
(date)

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD TEAM, REGION II

FINAL REPORT

Contract Idm-E272

by

T. E. Howard
Mining Engineer
U. S. Bureau of Mines

Gerald W. Fuller
Geologist
U. S. Geological Survey

MADISONIAN MINING AND MILLING COMPANY
BOZEMAN, MONTANA

Docket No.:	DMEA 2360
Commodity:	Chrysotile Asbestos
Effective date:	March 11, 1952
Termination date:	October 19, 1952

FINAL F. T. RPT.

Reviewed by
DMEA OPERATING COMMITTEE

5-29-53
(date)

LITTLE MILE CREEK ASBESTOS DEPOSIT
Little Mile Creek Unorganized Mining District
Madison County, Montana

Spokane, Washington

April 3, 1953

FINAL REPORT

MADISONIAN MINING AND MILLING COMPANY
Little Mile Creek Asbestos Deposit
Madison County, Montana

Contract Idm-E272

* * * *

INTRODUCTION

Authorship

The section of this report concerning Geology was written by G. W. Fuller, Geological Survey. The Summary, Recommendations, and Discussion of Conclusions were prepared jointly by Fuller and T. E. Howard, Bureau of Mines. The remainder of the report was prepared by Howard.

Summary

A DMEA contract in the amount of $24,400 was entered into on March 11, 1952, with the Madisonian Mining and Milling Co. for the purpose of exploring chrysotile asbestos occurrences in the Little Mile Creek area, Madison County, Montana. Actual work under the contract started June 18, 1952 and was terminated October 19, 1952. As exploration work progressed, it became increasingly evident that no worthwhile discovery would be made. The work was terminated on the expiration date of the contract. The contract was not extended because, in the opinion of the Field Team, the results of the exploration did not justify further work.

Work under the contract consisted of surveying, geologic mapping, sampling, metallurgical testing, access road building, and trenching of limestone-gabbro contacts. Units of work completed consisted of 3 miles of access roads, 5300 lineal feet of bulldozer trenching (298 hours bulldozer time), metallurgical testing of the ore by the Bureau of Mines laboratory at Albany, Oregon and the mapping of an area 1½ by 2 miles, comprising a set of four maps.

Recommendations

In the opinion of the Field Team, no additional exploration of the asbestos deposit is warranted, for although the limestone-gabbro rocks are exposed over a large area, the occurrences of chrysotile asbestos along exposed contacts are sporadic and small, not lending themselves to economic mining. Furthermore, detailed inspection

revealed that although in places the rock contained as much asbestos as some of the Arizona deposits now being worked, the asbestos was not concentrated in beds from which it could be hand-sorted but was disseminated through the rock in such a way that a clean product could not be made. Metallurgical testing demonstrated a final product of poor grade spinning fiber because of contaminating minerals including aragonite, picrolite, and antigorite.

The project was unsuccessful and no discovery should be certified.

THE PROJECT

The subject contract was granted March 11, 1952. Work was started on June 18, 1952 and terminated on October 19, 1952. The project was not recessed at any time between the starting and completion dates. No unusual working problems were encountered.

The work under the contract was set up in two stages: Stage I to consist of geological work, geophysical work, surveying, and mapping; and Stage II to consist of additional geological work, also bulldozer trenching, drifting, crosscutting, test pitting, and/or opening up old workings for sampling purposes. Conventional methods were employed for the work.

An area 1-1/2 by 2 miles was mapped on a scale of 1 inch to 500 feet, and significant areas like mineralized contacts, tunnels, etc. were mapped on a larger scale. A total of 178 man-days was spent in surveying and mapping at a unit cost of $22.20 per man-day. The following maps were made under Stage I of the contract: (1) Geologic Map of Chrysotile Deposits in the Little Mile Creek Area, Mont., scale 1" = 500'; (2) Geologic Map of Tunnels, Little Mile Creek Area, scale 1" = 20'; (3) Geologic Map of Vicinity of Nos. 1 and 2 Mines, scale 1" = 100'; (4) Geologic Map of Old Asbestos Mine Area, scale 1" = 100'; (5) Figure 1 - Index Map of Southwestern Montana Showing Location of Asbestos Deposits.

Under Stage II of the contract, 155 bulldozer hours were spent in rehabilitating old and building new access roads to the various known asbestos occurrences at a unit cost of $17.57 per hour. A total of 143 bulldozer hours were performed in trenching the limestone-gabbro contact at a unit cost of $17.90 per hour. Most of the trenching was done in the vicinity of the Nos. 1 and 2 mines (open cuts) where the best grade of fiber is known to occur.

Trenching at the No. 2 mine exposed a 15-foot width of slip fiber of very poor quality, undoubtedly developed by intense post mineral faulting along the limestone-gabbro contact. The best grade of fiber, estimated to contain 4 per cent asbestos, is exposed in the No. 1 mine; however, the fiber is harsh. This exposure is approximately 15 feet wide but is cut off a short way down dip by a large NW-SE post-

mineral fault. Other minor occurrences of asbestos along the limestone-gabbro contact were examined with negative results.

The Operator spent a great deal of effort in an unsuccessful attempt to reopen the caved workings of the old mine by means of a bulldozer and a diesel shovel. The Field Team allowed some hand labor, which aided in draining the old mine for inspection, but recognizing the impracticability of reopening the old workings by means of a bulldozer and power shovel, advised the Operator that the Government would not participate in further work toward this end. The Operator continued the attempt to reopen the old workings on his own account but by the time the contract was terminated had not succeeded in accomplishing this.

Tabulation of Work Units, Pay Rates, and Expenditures

Working Time:

Supervising engineer	118 days
Instrument man	73 days
Labor	130 days

Pay rates:

Supervising engineer	$600/mo. ($20/day)
Instrument man	400/mo. ($13.33/day)
Labor	14/day (no overtime)

Expenditures:

Independent contracts (bulldozing)	$2,980.00
Labor and Supervision	5,153.32
Operating materials and supplies	429.20
Operating equipment (rental)	972.83
Miscellaneous	517.18
Total	$10,052.53
Total contract amount	$24,400.00
Government's participation - 90%	21,960.00
Total expended	10,052.53
Government's share of expended funds	9,047.28 ✓
Government's share unexpended	12,912.72

Value of Production During Operations

There was no production during the exploration period. Several tons of ore were hauled to the Interstate Products Co. mill at Bozeman, Mont. for test purposes.

Equipment Purchased under Project

Major items of equipment used on the project were rented. Only necessary operating supplies like fuel oil, explosives, and repair parts were purchased.

Efficiency of Operations

Efficiency of operations was very poor due to the Operator's reluctance to follow advice of his supervising engineer. From the standpoint of sound operating and administrative practices the Operator could be considered incompetent.

No unusual or difficult physical conditions were encountered during the course of operations.

MINE WORKINGS AND PLANT

The deposit was mined intermittently by the Montebestos Mining Co. between 1924 and 1938. (See Geologic Map of Old Asbestos Mine Area.) A small mill was built on the property during that period but has since been dismantled. Production records covering this period are not available, and it is doubtful that any were kept. An examination of the old workings indicates a production on the order of only a few tons of fiber.

GEOLOGY

No detailed geologic work was done on the property by DMEA examiners. M. Klepper and E. Youngberg of the U.S.G.S. visited the property before the DMEA contract was in effect. W. B. Myers of the U.S.G.S. visited it on several occasions during the life of the contract. A. E. Weissenborn visited it on two occasions; once in company with Myers and Klepper of the Spokane office of the U. S. Geological Survey and once with Andrew Shride, U. S. Geological Survey Commodity Geologist for asbestos.

The geologic information presented here is from the extensive work done by C. T. Bressler while in the employ of the Madisonian Mining and Milling Company and from personal observations of the several persons mentioned above. It has been compiled by G. W. Fuller of the U. S. Geological Survey and verified by W. B. Myers and A. E. Weissenborn.

The Little Mile Creek asbestos deposit is situated on the west front of the Madison Range. It is underlain by a thick assemblage of ancient (pre-Cambrian) 1/ sedimentary rocks altered by metamorphism into quartz schists, chloritic green schists and crystalline marbles of varying purity. The initial compositions of these rocks can only be inferred, though they appear to be metamorphic equivalents of greywacke sandstones and siltstones (with interbedded quartz-rich sandstones) and a thick series of non-fossiliferous limestones and dolomites.

The absence of high temperature metamorphic minerals and the prevalance of chloritic green schists indicates a relatively low temperature low-grade metamorphism. Deformative forces applied to the region have imparted to the rocks a regional trend of approximately N 20°-25°E. Local minor deviations from the regional trend occur, generally in the vicinity of intrusive rocks. The metasediments are quite contorted and minor tight folds are observable in road cuts and the underground workings. Some shearing along depositional contacts has resulted from the folding of these rocks.

In the area of the mine this metasedimentary sequence has been intruded by an irregular stock-like mass of gabbroic material. The upper portions of this mass are dike-like in shape and exhibit both concordant and discordant relations with the folded metasediments. The slopes near upper localities Number 1 and Number 3 afford excellent opportunities to observe the very complex nature of the contact. The intrusive rock contact is somewhat sinuous but maintains, in general, a fair degree of accordancy where the metasediments are unbroken. However, where pre-intrusive faults cut the folded meta-sediments, dike-like injections of varying widths extend upward along these lines of weakness. Evidence at and near the intrusive contact shows little contact mineralization other than the development of serpentine (both massive and chrysotile varieties), although in other areas, particularly upper locality Number 3, a fibrous amphibole (tremolite-actinolite?) has been found at the contact.

Outcrop patterns in this area are distinct and easily defined. The green schists are the westernmost rocks, and their contact with the carbonate rocks is marked by a conspicuous break in ridge slopes. A color change from the dark green and black schists to the light brown carbonates also aids in determining this contact. The gabbro has intruded both of these rock units but does not develop distinctive physiographic features.

1/ Preliminary Geologic Map of Montana, U.S.G.S., 1945.

The structure in this area is extremely complex and has not been fully studied. It is possible that a repetition, due to folding and faulting, of the beds involved at the mine may occur in the mountains to the east. There is evidence that the green schists and possibly other basic intrusives crop out in that area. Within the confines of the old mine, several minor structures can be observed. The structure observed in the largest stope has been described as a compound syncline or portion of a synclinorium.

Recent faulting in the area is evidenced by fault scarps which cut alluvial fans along the west front of the Madison Range. In the mine area, conspicuous breaks in ridge slopes other than at contacts have also been interpreted as recent fault scarps.

The Little Mile Creek asbestos deposits had previously been partially explored, however, little is known of early mining operations. Some production was reported in 1925 and presumably continued until mining ceased in 1938 when the operator, the Montbestos Mining Co., closed operations. Considerable surface prospecting is evident in the area as well as some diamond drilling done between localities Number 2 and Number 3. Information about the extent and the results of the diamond drilling was unattainable by DMEA field men.

The chrysotile asbestos occurences in the Little Mile Creek area are contact metamorphic deposits resulting from the intrusion of basic igneous rocks into metacarbonate rocks. The asbestos is generally confined within a small contact aureole, ranging from 2 to 15 feet in width, on the upper surface of the gabbroic intrusive. The mineralogical content of this aureole is quite variable; undoubtably a reflection of variations in compositions of the carbonate beds. Small lenses and stringers of quartz and chert, observed in the unmetamorphosed carbonate beds, apparently have been altered, within the aureole, first to magnesium and calcium-magnesium silicates thence to greenish-yellow massive serpentine. In other beds, amphiboles (tremolite-actinolite) have resulted from alteration of the quartz stringers. In still other beds, thought to have been originally low in magnesium, unaltered silica stringers exist in close proximity to the igneous contact. These mineralogical differences strongly indicate that the original composition of the dolomitic and limestone beds is a major controlling factor in the formation of the serpentine and the different asbestiform minerals. Serpentinization is not strictly confined to the carbonate rocks, locally having affected the gabbroic rocks within a few feet of the contact.

In the area between upper localities Numbers 1 and 2, where most of the DMEA work was done and where most of the best fiber was encountered, shearing movements are apparently, in part, responsible for the formation of the asbestos fiber. These movements are along both the intrusive contact and between and within the carbonate beds, principally along the axes of small, tight synclinal troughs. A similar situation exists within the underground workings of the old mine. It is believed

by DMEA field examiners that this relationship controls the formation of essentially all the larger occurrences of chrysotile asbestos in this area. The most favorable positions for ore shoots occur in tight synclinal troughs in the carbonate beds within the intrusive mass. This situation will combine the elements of a roof pendant, extending downward into the igneous material, and a fold axis where mild secondary shearing movements may occur.

In general, the fiber veinlets at localities Numbers 1 and 2 are within or adjacent to narrow stringers and small pods of serpentine within and between the carbonate beds. At upper locality Number 1, these veinlets average less than 3/8 in width and contain cross-fiber chrysotile. However, slightly oblique partings cut these veinlets and result in rapidly varying fiber lengths. It has been estimated that less than 5% of the unbroken fibers are 3/8 inches or longer. At upper locality Number 2 the fiber encountered is poor in quality and insignificant in quantity. Here most of the chrysotile asbestos occurs as slip-fibers along shear planes. At upper locality Number 3 harsh, green, long-fiber asbestos occurs in insignificant amounts. The fibers occur in veinlets associated with tremolite-calcite bands within a few feet of the accordant contact of the intrusive. Here too, the beds lie in a small assymetric synclinal roll.

In the course of the DMEA project the underground workings of the old mine were re-examined and a comparison was made of the asbestos found there with the material found at upper locality Number 1. It has been estimated that the amount of fiber left in the walls of the old workings would be no more than half that of locality Number 1. However, it is considered possible that a larger percentage of the total fiber in the old mine would exceed 3/8 inches in length than at locality Number 1.

The asbestos mineral in the Little Mile Creek asbestos deposit is primarily cross-fiber chrysotile. In general, the shortness of the fibers and admixed impurities excludes this material from the uses generally required for chrysotile asbestos. The section on Beneficiation of the Ores, based on metallurgical examinations by the Bureau of Mines at Albany, Oregon contained in this report describes more fully the petrography and physical characteristics of representative samples of ore from this deposit.

Exploitation Possibilities

Ore Reserves

No detailed estimate of ore reserves can be made other than that based on known geological factors. Only the asbestos exposed in the 1, 2, and 3 pits appear to have enough continuity to make ore. The serpentine in the No. 1 pit is developed on the surface for a strike length of 30 feet and underground by an adit 70 feet long, following a flat footwall. The development in the No. 2 pit is similar except the

strike length exposed is 20 feet and the adit is 47 feet long. The only development in the No. 3 pit is a shallow opencut.

Indicated ore reserves for Nos. 1, 2, and 3 pits are given below:

Location	Computations	Tons Indicated	Estimated Grade
No. 1 pit	$\frac{15' \times 30' \times 70'}{12.3 \text{ cu.ft./ton}}$	2560	4% ±
No. 2 pit	$\frac{5' \times 20' \times 47'}{12.3 \text{ cu.ft./ton}}$	380	2-1/2% ±
No. 3 pit	$\frac{9' \times 25' \times 20'}{12.3 \text{ cu.ft./ton}}$	365	2% ±

Beneficiation of the Ores

Two samples of approximately 250 pounds each were taken from the Nos. 1 and 2 pits for metallurgical testing. The samples were taken from piles of broken ore at the respective pits and are believed to be representative of the ore in place. The samples were tested by the Bureau of Mines metallurgical laboratory at Albany, Oregon. Results of these tests are quoted below:

"Petrographic examination.

"Sample 1 - Pit 1. Sample consists mainly of serpentine minerals of the massive variety with small amounts of the serpentine minerals of the fibrous and lamellar varieties of chrysotile, picrolite and antigorite, and with small amounts of aragonite. The bulk of the fibrous minerals did not possess the necessary flexibility required for commercial grade asbestos, nor were the fibers of satisfactory length. The bulk of the fiber was less than 3/16-inch in length.

"Sample 2 - Pit 2. Sample consists mainly of serpentine minerals of the massive variety, with small amounts of the serpentine minerals of chrysotile, antigorite, and picrolite (lesser quantities than in Sample 1): and small amounts of aragonite (greater quantities than in Sample 1). The bulk of the fibrous minerals did not possess the necessary flexibility for a satisfactory commercial grade asbestos. However, in this sample a very small amount of chrysotile was found with long flexible fibers.

Sample 1 - Pit 1.

Product	Wt. %	Fiber Spec.	Approx. $CaCO_3$
Spinning product	1.3	7-4-3-2-	2%
Shorts product	0.4	0-6-2-14	23%
Sands product	6.0	--------	21%
Rock reject	92.3	--------	--

Sample 2 - Pit 2.

Product	Wt.%	Fiber Spec.	Approx. $CaCO_3$
Spinning product	0.2	10-3-1-2	4%
Shorts product	0.7	0-0-2-14	14%
Rock reject	99.1	----	---

Metallurgical Conclusions.

Test work on the ore produced a poor grade of asbestos fiber due to the contaminating minerals aragonite, picrolite and antigorite which tended to fiberize with the chrysotile. The contaminating minerals imparted a brittleness to the final product making it undesirable as a spinning grade asbestos fiber. Furthermore, aragonite has the undesirable thermal property of decomposing at a relatively low temperature. It was further observed that there was not sufficient chrysotile present to warrant economic consideration.

Discussion of Conclusions

Madison County contains the only known occurrence of chrysotile asbestos in Montana. The widespread occurrence of gabbro intrusives into dolomitic limestones indicated the possibility of making a worthwhile discovery. Trenching of the gabbro-limestone contacts indicated that the occurrence of chrysotile asbestos was dependent on a combination of physico-chemical factors in which the magnesia content of certain intruded beds and their attitude with the intrusive gabbro appear to be important. This combination of factors was found in only a few places and affected only small areas.

The geologic mapping done during the course of the exploration project did not disclose any promising new areas containing commercial deposits of chrysotile asbestos. However, an understanding of the geologic environment necessary for the formation of chrysotile asbestos at this locality was gained by the mapping and subsequent examinations. Hope for any new ore shoots would depend upon extremely detailed mapping of a type not yet undertaken plus skillful interpretation of the results gained. However, it is believed that upper locality Number 1 and the old mine represent optimum conditions of ore formation, and, as such that no additional work is warranted.

Enclosures
Distribution:
DMEA(4)
USBM(5)
USGS(SRO)
Docket
~~Kirkemo~~
Myers

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

[redacted]
So. 157 Howard Street
Spokane 4, Washington

December 4, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 8 1952

Mr. Frank E. Johnson, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Madisonian Mining and Milling Co.
Docket DMEA-2360 (Asbestos)
Madison County, Montana
Contract Idm-E272

Dear Mr. Johnson:

Enclosed are the original and two copies of a final report prepared by Stephen W. Zoldok on the captioned contract. One copy of the report has been retained for the files of this office and one for the files of the Branch Office (U. S. Bureau of Mines).

Sincerely yours,

Thor H. Kiilsgaard

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

Enclosure

cc: USBM (2)
Myers

FINAL ENGINEERING REPORT ON CHRYSOTILE DEPOSITS IN THE LITTLE MILE CREEK AREA, MADISON COUNTY, MONTANA

By

STEPHEN W. ZOLDOK

For

THE MADISONIAN MINING AND MILLING COMPANY, INC.
BOZEMAN, MONTANA

October 30, 1952

GENERAL

This report summarizes the work accomplished at the Little Mile Creek asbestos deposit owned by the Madisonian Mining and Milling Company, Inc., Madison County, Montana. The work was done under DMEA Contract No. IDM-E-272.

The project was under the supervision of Mr, C. T. Bressler, geologist, from June 18 to September 1, 1952; thence under the direction of Stephen W. Zoldok, mining engineer, from September 11 to October 19, 1952; at which time project work under the exploration contract was terminated.

The work was done in two stages: Stage I consisted of geological work, surveying and mapping, and Stage II consisted of bulldozer work on access roads and trenches and sampling. Stage II of the exploration project was started before the completion of Stage I.

GEOLOGICAL WORK, SURVEYING AND MAPPING

This work, comprising all of Stage I, was done by Mr. C. T. Bressler, geologist, with the aid of two assistants in surveying. The following maps and a geological report were submitted by Mr. Bressler:

1. Geologic Map of Chrysotile Deposits in the Little Mile Creek Area, Montana - Scale: 1" = 500'
2. Geologic Maps of Tunnels, Little Mile Creek Area - Scale: 1" = 20'
3. Geologic Map of Vicinity of Nos. 1 and 2 Mines - Scale: 1" = 100'
4. Geologic Map of Old Asbestos Mine Area - Scale: 1" = 100'
5. Geologic Report on Chrysotile Deposits in the Little Mile Creek Area, Madison County, Montana, September 1, 1952, by C. T. Bressler

No additional geological work or surveying was done during Stage II of the exploration project.

BULLDOZING ACCESS ROADS AND TRENCHES

Considerable bulldozing of access roads and trenches was done during Stage I of the exploration project. During the life of the project, 298 hours of

allowable bulldozer time were completed, divided as follows:

Re-opening old access road	24 hours
Access road to and trenching in vicinity of Orphan Girl	62 hours
Trenching at Nos. 1 and 2 Mines	40 hours
Access road between Nos. 1 and 3 Mines and trenching at No. 2 Mine East	100 hours
Trenching northwest of the No. 1 mine	72 hours

A truck grade road was built on company account from the old mill building to the No. 1 Mine, a distance of approximately 2-1/2 miles. The company also re-opened the old asbestos mine with a bulldozer and power shovel.

SAMPLING

A bulk sample of approximately ten tons of ore was taken at the Nos. 1 and 2 Mines and stored in the camp area for possible future metallurgical testing. A sample approximating 500 pounds, divided equally between the Nos. 1 and 2 Mines, was shipped to the U. S. Bureau of Mines laboratory at Albany, Oregon, for metallurgical testing. The results of the test were not available at this writing.

CONCLUSIONS AND RECOMMENDATIONS

The investigation of the Little Mile Creek chrysotile deposits, under this exploration program, has indicated the occurrence of good chrysotile in the area. The areal extent of the major deposits and the genetic relationship between the chrysotile and the host rock has been established.

Future exploration should have as its objective the underground exploration of the deposits, particularly in the area of the No. 1 Mine, where the maximum widths and best grade of ore are known to occur.

A bulk sample of the ore should be sent to a laboratory or mill competent

to separate and classify the fiber into its various commercial grades to aid in marketing the mine product.

Stephen W. Zoldok

Stephen W. Zoldok
Mining Engineer

Stephen W. Goldstein.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 1 7 1952

November 12, 1952

Mr. R. J. Hindman
Certifying Officer, DMEA Region II
1201 N. Division
Spokane, Washington

Re: Docket DMEA 2360 (Asbestos)
Madisonian Mining and Milling
Madison County, Montana
Contract Idm-E272

Dear Mr. Hindman:

This is to inform you that all work under the subject contract has been completed to the satisfaction of the Government and that the full and final accounting of operations as presented by the Operator is considered acceptable by this office. A final report evaluating the results of work completed under the contract also has been presented and accepted as satisfactory.

Inasmuch as all requirements have been met, it is requested that the Operator's final invoice be accepted for vouchering and payment.

Sincerely yours,

Weissenborn
ive Officer
ield Team, Region II

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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NOV 17 1952

November 4, 1952

Mr. F. E. Johnson, Chairman
Operating Committee, DMEA
Dept. of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 2360 - Asbestos
Madisonian Mining & Milling Co.
Madison County, Montana
Contract No. Idm-E272

Dear Mr. Johnson:

This is to acknowledge your letter of October 30 requesting us to send two additional copies of a report by C. T. Bressler on the subject contract. This points out that the matter of obtaining sufficient copies of these final reports is a problem that sometimes plagues us. In this case the operator submitted five copies of the report as required in the contract. Two copies of the report were sent to you, one copy was given to the Bureau of Mines office for their files, and one copy was retained in the Field Team files here. It is essential that both the Executive Officer and the Bureau of Mines have these copies. This leaves one copy which I used to take to the field with me on a recent inspection of the property and which I would like to retain here to put in the permanent commodity files of the Geological Survey as contrasted to our DMEA files. In this case we can solve the problem rather simply. We have talked the operator out of extra copies of the maps, and as soon as time permits, we will have the report retyped with sufficient copies for everybody.

The facts are, though, that there just are not enough copies of these reports to go around, especially since the local offices of the Survey and the Bureau feel that we must have copies of such reports for our own protection should any questions arise in the future concerning these properties. On the other hand, it is difficult to see how we can ask for many more copies from the operator. A suggestion on the way out of this dilemma would be appreciated.

Sincerely yours,

A. E. Weissenborn

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

cc: USBM(2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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NOV 3 1952

October 31, 1952

Mr. F. E. Johnson, Chairman
Operating Committee, DMEA
Dept. of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2360
Madisonian Mining and Milling Co.
Madison County, Montana
Idm-E272

Dear Mr. Johnson:

Enclosed for your information and files are two copies of a report by Paul H. Floyd, Head, Mineral Dressing Section, U. S. Bureau of Mines, Albany, Oregon.

Sincerely yours

A. E. Weissenborn

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

cc: USBM (2)
Myers

U. S. BUREAU OF MINES
RECEIVED
OCT 30 1952
SPOKANE, WASHINGTON

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Mines

Metallurgical Report

Docket No. DMEA-2360
Contract No. Idm-E272

To: Glen C. Ware, Acting Chief, Nonferrous Metals Branch

From: Paul H. Floyd, Head, Mineral Dressing Section

Subject: Beneficiation report on Madisonian Mining and Milling Co. asbestos materials. Head 265

This material was received in two samples from Mr. C. A. Lester, Bozeman, Montana through J. D. Bardill of the Mining Division, Region II. Mr. Lester represents the Madisonian Mining and Milling Company. The work order was of D. M. E. A. origin and requested: "Please beneficiate to recovery spinning grade asbestos plus any other grades."

The two samples were beneficiated into graded products by hand-sorting and cobbing of the coarse material; by progressive screening and fiberizing the fine materials, and by air concentration of the fiberized asbestos. The resulting products were tested similarly to standard trade procedures. The entire test conformed to the industrial practices as outlined in "Asbestos-Milling, Marketing and Fabrication." I. C. 6869, by Oliver Bowles.

Petrographic Examination

Petrographic examination of the materials submitted for testing revealed:

a- Sample 1- Pit 1 to consist mainly of serpentine minerals of the massive variety; with small amounts of the serpentine minerals of the fibrous and lamellar varieties of chrysotile, picrolite, and antigorite; and with small amounts of aragonite. The bulk of the fibrous minerals did not possess the necessary flexibility required for commercial grade asbestos, nor were the fibers of a satisfactory length. The bulk of the fiber was less than 3/16 inch in length.

b- Sample Two - Pit 2 to consist mainly of serpentine minerals of the massive variety; with small amounts of the serpentine minerals of chrysotile, antigorite, and picrolite (lesser quantities than in sample one); and small amounts of aragonite (greater quantities than in sample one). The bulk of the fibrous minerals did not possess the necessary flexibility for a satisfactory commercial grade asbestos. However, in this sample a very small amount of chrysotile was found with long flexible fibers.

Test Procedures

The two samples submitted were given similar treatment in separate tests. The work was carried out at follows:

1. The entire sample was passed over a 3/4" screen, the oversize was cobbed and hand-sorted. This step permitted the elimination of approximately one third of the waste rock. Observations made during this procedure revealed that the vast bulk of fibrous mineral was 3/16" in length or shorter in sample one, and sample two contained some long chrysotile fiber but the quantity of it was exceedingly small.

2- The 3/4" screen undersize and the hand-sorted material was recombined and passed over a 9-mesh screen with a vacuum collector line applied at the discharge end of the screen. The vacuum line passed through a rock trap and into a bag to collect the final fibrous product. The screen oversize rock reject was subjected to a crushing operation through a 5/8" discharge cone crusher; the crushed rock was repassed over the 9-mesh screen-vacuum line collector system. The rock reject was crushed and fiberized through the swinging sledge mill with one discharge plate removed; the crushed and fiberized rock was again passed over the 9-mesh screen-vacuum line collector system. The sledge mill-screen-vacuum collector procedure was carried out three times. The final reject plus 9-mesh was free of all fibrous minerals and it was considered a waste product.

3- The 9-mesh screen undersize was passed over the screen-vacuum collector system with the screen cloth changed to 20-mesh. The oversize rock reject was passed through the sledge mill (with all discharge plates in) for further fiberizing. The sledge mill product was returned to the 20-mesh screen-vacuum collector system. This procedure was repeated three times. The final plus 20-mesh rock reject was free of fibrous mineral and was considered a waste product.

4- The 20-mesh undersize was treated exactly as the 9-mesh undersize (in part 3 above) excepting that the screen size was changed to 48 mesh. A third reject waste product was produced and a fine sand undersize that had a density of 61.5 pounds per cubic foot. However, inspection of this undersize sands product revealed it to contain approximately 20 percent aragonite which made it worthless as a possible asbestos by-product.

5- The fibrous mineral collected in the screen-vacuum system vacuum bags was screened to remove short fiber and thus bring a portion of the material into the fiber length specification range of spinning grade fiber. The fiber products for the two samples are given in table 1. The procedure for classifying the spinning grade product was conducted according to the standard method described in "Asbestos-Milling, Marketing, and Fabrication". - I. C. - 6869, by Oliver Bowles.

Conclusions

The test work demonstrated a poor grade of asbestos spinning fiber was produced because of the contaminating minerals of aragonite, picrolite, and antigorite that tended to fiberize with the chrysotile to contaminate the final fibrous products. The contaminating minerals gave a brittleness to the final fibrous product that would be undesirable as spinning grade asbestos. The aragonite was harmful from the standpoint of not only being brittle but would have the harmful thermal property of decomposition at relatively low temperatures. It was further observed that regardless of the deleterious minerals present, there was still insufficient chrysotile present in the samples to warrant economic consideration.

This test work is representative of the sample submitted for beneficiation tests only, and consequently only represents the ore body in question to the extent that the samples submitted for testing represent that ore body. This work is considered complete and further work is not anticipated unless new requests and samples are submitted.

Test Engineer: P H. Floyd

Paul H. Floyd

MEV ✓
JDB
PHF
GCR
MF
RF
DF

Table I
Head No. 265
Test Engineer: P. H. Floyd
Name of Sample: Madisonian Mining and Milling Co. asbestos material - C. A. Lester, Bozeman, Montana.
Description of Procedure: Hand-sorting and cobbing; progressive crushing and fiberizing in a sledge mill; fiber separation by screening and vacuum collector system.

Sample I

Product	Weight Percent	Fiber Spec.	Approx. $CaCO_3$
Spinning Product	1.3	7-4-3-2	2%
Shorts Product	0.4	0-0-2-14	23%
Sands Product	6.0	-----	21%
Rock reject	92.3	-----	--

Sample 2

Product	Weight Percent	Fiber Spec.	Approx. $CaCO_3$
Spinning Product	0.2	10-3-1-2	4%
Shorts Product	0.7	0-0-2-14	14%
Rock Reject	99.1	------	--

400

FILE COPY
SURNAME:

Selfridge

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

OCT 30 1952

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

Re: Docket No. DMEA 2360 - Asbestos
Madisonian Mining & Milling Co.
Madison County, Montana
Contract No. Idm-H-272

Dear Mr. Weissenborn:

This is to acknowledge receipt of your letter of October 23, 1952, forwarding two copies of a report by Mr. C. T. Bressler relating to the subject contract.

In keeping with current instructions relating to such reports, will you please send us two additional copies of the report in order that they may be distributed to the U. S. Geological Survey and the U. S. Bureau of Mines here in Washington.

Sincerely yours,

(signed) FRANK E. JOHNSON
(HB)

Chairman, Operating Committee

10-30-52

Approved:

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

A. R. Kinkel, Jr. (HB)
Member, Geological Survey

GCSelfridge:ls
10/29/52

cc: Docket
Admn. Read.File
Field Team, Reg. 2
Oper. Committee
Mr. Houk (2 cc)
J. J. Norton, USGS
Oliver Bowles, USBM

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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OCT 27 1952

October 23, 1952

Mr. F. E. Johnson, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket DMEA - 2360 (asbestos)
Madisonian Mining & Milling Co.
Madison Co., Montana
Contract No. Idm-E272

Dear Mr. Johnson:

Enclosed for your information and files are two copies of a report together with maps by Mr. C. T. Bressler summarizing the results of geological investigations of chrysotile asbestos deposits on Little Mile Creek, Madison County, Montana. The investigations comprise Stage I of a two stage exploration program under the subject contract.

Sincerely

Eva M. Raymond

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

Enclosures
cc: USBM (2) w/1 encl.
Myers

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

1201 N. Division St.
Spokane 2, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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October 13, 1952

MEMORANDUM

To: DMEA Field Team, Region II

From: John S. McNabb, Mining Engineer, Bureau of Mines

Subject: Routine inspection of the Madisonian Asbestos mine, Contract Idm-E272, Madisonian Mining and Milling Co., Madison County, Montana, Docket No. 2360 (asbestos)

A routine inspection of the Madisonian Asbestos mine was made on October 2, 1952. At the time of my inspection there was no work being performed under Contract Idm-E272 at the Madisonian Asbestos mine.

Geologic mapping, sampling, and trenching were completed at the property during the summer months. This work was outlined in Stage I of the contract, although some of the trenching and sampling may fall in the category of Stage II.

The next phase of work at the property has not been determined as yet, nor has it been decided whether additional work will be done in conjunction with the DMEA. My inspection of the property would indicate that the next phase of exploration should involve diamond drilling or drifting so that the extent of the exposures revealed by trenching could be determined. The workings that would be involved are located at an elevation in excess of 9,000 feet and no doubt will be subjected to severe winter conditions. Consequently, I would recommend that any additional work at the property be postponed until next spring.

John S. McNabb

CC: 3-Wash
2-USGS
DMEA
JSM
M/D
D/F

JSM:kt

M. E. Volin, Member, DMEA Field Team, Region II August 14, 1952

D. R. Irving, Mining Engineer, Mining Division, Region II

Interim Report, DMEA Docket No. 2360X (asbestos), Madisonia Mining and Milling Co., Madison County, Montana, Contract Idm-E272

W. B. Meyers, Geologist, USGS, was interviewed in Dillon, Montana, on July 30, 1952, regarding work under the contract. He had visited the property on June 30 and July 1, 1952, and revisited it on July 15.

Since all work being done under the contract is geological mapping, and since a representative of the Field Team had been on the property twice during the month of July, it was decided further inspection at the time was not justified. A trip to the mine from Dillon and return requires about 6 to 7 hours of driving.

The work to July 15 consisted of reconnaissance, establishment of survey control stations, and a minor amount of geological mapping. Mr. Meyers stated the geologist in charge, Mr. C. T. Bressler, is competent, but at the time of the June 30-July 1 inspection he was too concerned with the accuracy of the available topographic map of the area. Meyers advised him to concentrate on the geological mapping in order to obtain maximum geological data within the limits of allotted funds.

For geological details see routine inspection report memorandum from W. B. Meyers to A. E. Weissenborn, Executive Officer, DMEA Field Team, Region II, dated July 18, 1952. Meyers stated that the Operator has requested approval to start Stage II.

D. R. Irving

CC: 2-Wash.
2-USGS
DRI

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

So. 191 Howard Street
Spokane 4, Washington

July 18, 1952

Memorandum

To: A. E. Weissenborn, Exec. Officer, DMEA Field Team, Region II

From: W. B. Myers, Geologist, U. S. Geological Survey

Subject: Routine Inspection, Contract Idm 272, Docket No.-2360, Madisonian Mining and Milling Co., Inc., Madison County, Montana, (Chrysotile Asbestos)

The Madisonian chrysotile asbestos project was visited on the late afternoon of June 30 and on July 1, 1952.

Project operations to that time had consisted mostly of preliminary investigations and establishment of surveying control by the geologist and his assistant. The geologist, C. T. Bresslar, started work on June 18, 1952.

Company operations, not a part of the contract project, comprised the repair of a bulldozer road up to the upper localities Numbers 1 and 2, as well as the rehabilitation of a cookhouse--mess hall. The road is very steep, much of it averaging more than 20 percent grade; several short pitches approach 30 percent grade. Although it has been traversed by two-wheel drive vehicles, for practical purposes travel is restricted to four-wheel drive vehicles, and its usefulness is sharply limited to that of an access road for preliminary exploration.

A preliminary examination was made by the writer, in the company of Mr. Bresslar, of the surface and dumps of the lower mine area and the surface and limited underground exposures at and adjacent to the upper localities Numbers 1, 2, and 3. As a result of this joint examination the following tentative conclusions are offered regarding the localization of the asbestos fiber.

The asbestos is restricted to the inner portion (adjacent to the intrusive) of a thin contact-metamorphic aureole on the upper surface of a generally accordant mafic igneous mass. This mass of diabasic texture and probable gabbroic composition was intruded into a thick series of sharply folded dolomite beds and more and less dolomitic limestone beds. At a distance from the intrusive the unmetamorphosed carbonate beds commonly contain stringers, veinlets,

nodules, and lenses of quartz and chert. Within the aureole, which varies widely from a maximum of a few tens of feet, the silica masses in certain of the dolomite beds were transformed to unknown magnesium or calcium-magnesium silicates, which were in turn altered to greenish-yellow massive serpentine. In other beds the silica appears to have been converted, at least in part, to tremolite; and at some localities scattered tremolite needles occur throughout the carbonate. In all these instances the carbonate is now calcitic. The difference in behavior of different beds is considered to be due to differences in composition. At one locality unaltered silica stringers occur in calcite marble within a few feet of the intrusive--from this it is inferred that contact-metamorphism was not of sufficient intensity to affect a system low in magnesia.

In the upper area (localities Number 1, 2 and 3) asbestos fiber in significant amounts appeared to be related to shearing movement, either along the beds or along the nearby intrusive contact. At Numbers 1 and 2 localities the fiber veinlets are almost entirely within or adjacent to narrow stringers and small pods of greenish-yellow serpentine within and between beds of dedolomitized carbonate. The intrusive, which is commonly more or less serpentinized for widths of as great as several feet adjacent to the contact, is at these localities marginally sheared and locally contains fibrous actinolite.

At locality Number 3 harsh, greenish long-fiber asbestos occurs in insignificant quantity as several veinlets associated with tremolite-calcite bands within a few feet of the accordant contact of the intrusive. The beds here lie in a small assymetric synclinal roll, formed before or during intrusion and little affected by later movement. In the field the harsh greenish fiber was believed by the writer to be amphibole asbestos. Microscopic tests made by J. S. Vhay on specimens forwarded by the writer showed, however, most if not all of the fiber to be crysotile. Admixed carbonate (calcite) reported by Vhay, probably accounts for the harshness of the asbestos.

cc: DMEA (2)
USBM (2)
USGS (SRO)
W.B. Myers

W. B. Myers
Geologist

WBM/beh

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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OCT 27 1952

Summary Report, Stage I

GEOLOGICAL INVESTIGATIONS

of

Little Mile Creek Chrysotile Deposits

Madison County, Montana

by

C. T. Bressler

Introduction

This report summarizes the results of geological investigations of chrysotile asbestos deposits on Little Mile Creek, Madison County, Montana. The investigations comprise Stage I of a two-stage exploration program under a Defense Minerals Exploration Administration contract with the Madisonian Mining and Milling Company, of Bozeman, Montana, which holds claim to the deposits.

Stage I consists of geological work, surveying and mapping upon which further exploratory work under Stage II is based. Geologic evidence obtained under Stage I appears sufficient to warrant the exploration work scheduled for Stage II.

Recommendations pertaining to the type and scope of operations under Stage II are included in this report.

Geographic Setting

The asbestos deposits described in this report are in the lower valley of Little Mile Creek, and on the ridge to the north of the creek, in Madison County, southwestern Montana (See Fig. 1). Little Mile Creek flows northwesterly from the crest of the Madison Range, through a glaciated (?) canyon, over 1000 feet below the precipitous spur ridges on either side, to the western front of the range where it joins Mile Creek which flows north and joins the Madison River about a mile west of Madison Canyon.

The deposits are accessible by about eight miles of county and private road which connect with Montana State Highway No. 1 at Cliff Lake P. O.

A camp has been established in the valley of Little Mile Creek at an elevation of 7240 feet, and about 600 feet northwest of the abandoned mill of the now defunct Montbestos Mining Company. A road, suitable only for vehicles with 4-wheel drive, connects the workings on the ridge with the camp.

General Geology of the Little Mile Creek Area

The west front of the Madison Range, south of the Madison River, consists of a thick assemblage of ancient (Pre-Cambrian ?) sedimentary rocks now altered by metamorphism to quartz schist, chloritic green schists and crystalline limestones of varying purity. Except for the quartz rich rocks, the initial composition of these rocks can be only approximately inferred without detailed laboratory study. These rocks appear to be the metamorphic equivalents of a thick sedimentary rock sequence that included graywacke siltstones and sandstones[1] with interbedded quartz-rich sandstones, and a thick series of non-fossiliferous chemical limestones and/or dolomite.

The widespread occurrence of the chloritic green schists indicate a relatively low temperature-low grade metamorphism which characterizes the Green Schist Facies. Low grade metamorphism is indicated elsewhere throughout the area by the absence of typically higher rank metamorphic minerals (i.e. minerals such as forsterite, diopside, brucite, wollastonite which are indicative of higher temperatures).[2]

This sequence of sedimentary rocks has been folded and locally sheared by faulting. The deformative forces have imparted a regional trend of about N 23 E to the rocks in this area, although local minor deviations from this trend occur, generally in the vicinity of intrusive rocks.

Into this meta-sedimentary sequence a basic rock of gabbroic composition was intruded. The intrusive rock resembles an irregular stock-like mass, with dike-like upper portions, most of which exhibit both concordant and discordant relations to the folded meta-sedimentary rocks (See Plate II). Evidence at and near the intrusive contacts indicates very little contact mineralization other than the development of serpentine (including both massive and chrysotile varieties), although at several localities, notably at the No. 3 mine, a fibrous amphibole (actinolite-tremolite ?) has been found at the contact.

Each major rock unit except the intrusive shows a clearly defined outcrop distribution. The green schists are the westernmost rocks, and they crop out over a broad, roughly north-south to northeast belt in the ridges flanking Little Mile Creek from the mouth of the canyon to about a mile to the east where a break in slope occurs on the ridge crests. This break in slope, at an elevation of about 8700 feet on the ridge north of the creek; at 9000 feet on the next ridge to the north; and about 8000 feet on the ridge south of the creek, marks the contact between the schists and the carbonates. This contact is also recognizable by the difference in color between the two rock units: light brown for the carbonates and dark green to black for the schists. The gabbro is found in both of these rock units but it does not form prominent physiographic features.

1/ Graywacke, as used here, implies a dark gray (green or red) sedimentary rock of silt to sand size components which include quartz, micas, fragments of slate, phyllite, shale, and clay minerals.

2/ Barth, T.F.W., Theoretical Petrology, pp. 288-290; 330-337, Wiley, 1952.

The limestone and/or dolomite makes up a very distinct outcrop belt from the ridge south of Little Mile Creek northward across the Madison River. The east-west extent of the carbonates has not been explored, but there is evidence in the mountains to the east that the green schists, and possibly some more basic intrusions, outcrop east of the Little Mile Creek area. Whether this reccurrence of beds is the result of folding or faulting is not yet clear. Continued study of all the rock units is expected to clarify an obviously complex structure. Within the confines of the old asbestos mine several minor structures can be observed. In the largest stope the structure appears to be a compound syncline or possibly part of a synclinorium.

Evidence of recent faulting can be observed along the west front of the Madison Range. Several more or less continuous fault scarps cut the alluvial fans at the west base of the many spur ridges along the west side of the range. The scarp on the ridge north of Little Mile Creek is about 50 feet high. The scarp face slopes at an angle of 40 degrees to the west, whereas the slope above the scarp is about 30 to 33 degrees.

The age of the rocks exposed in and near Little Mile Creek is unknown. According to data on the Preliminary Geologic Map of Montana published by the U. S. Geological Survey in 1945, the rocks in this area are believed to be pre-Cambrian (i.e. over 500,000,000 years old), but positive evidence is lacking. Because of the difficulty of "dating" these rocks, it is consequently difficult to assign an age to them. However, it is possible to determine the relative ages of the rocks for it is clear that the intrusive is later than the schist-carbonate sequence, and the serpentine and chrysotile is the result of the intrusion, hence the asbestos deposits are younger than the other rocks.

Description of the Chrysotile Deposits

Chrysotile asbestos has been found at several points in the Little Mile Creek area. All but a few minor occurrences of asbestos lie in a zone that trends about N 23 E, which coincides with the regional trend of the green schist-carbonate meta-sedimentary sequence. This relationship is shown in Plate II.

The non-conformable minor asbestos occurrences are distributed in a more or less en echelon arrangement to the east of the north end of the principal mineralized zone. These minor occurrences, like those in the main zone, are found at the contact of the intrusive with the meta-carbonate rocks. No asbestos has been found at the contact of the intrusive with the green schists. The strike attitude of the minor occurrences conform to the regional strike trend.

The main zone has been partly explored by several short adits and prospect pits, and by the workings of the old asbestos mine which is now flooded at the lower levels. The northern end of this zone, on the ridge north of Little Mile Creek, is distinguishable from asbestos occurrences elsewhere in the zone by the widespread shearing exhibited along the contact between the intrusive and the carbonate rocks. This is best shown between the Nos. 1 and 2 mines where the intrusive and

and carbonate appear to be in fault contact with one another. This is the only asbestos area in which widespread shearing has been observed, although at other localities in the main zone, as in the old asbestos mine, some shearing can be seen. In the old mine there is considerable shearing along a fault in the air shaft. In general, however, the relations between the intrusive and the carbonates appear to be more typically intrusive.

Examination of the deposits reveals that all the chrysotile occurs in the carbonate rocks within a zone that varies from two to 15 feet wide, along the contact with the gabbro intrusive. Inasmuch as no exceptions to this fact have been observed, it is therefore of paramount significance in the exploration and development of the deposits. Consequently all exploration and future mining operations should be restricted to the zone adjacent to the carbonate-intrusive (gabbro) contact.

The distribution of the known deposits, adits, and prospects is shown in Plate II. Detailed geology of the deposits on the ridge at the north end of the main zone, and at the No. 3 mine, is shown in Plate III, the geologic map of the adits on the ridge north of Little Mile Creek.

The asbestos has not been examined to determine all its physical and chemical properties, although refractive index determinations by Mr. John Vhay, U. S. Geological Survey, Spokane, Washington, have o confirmed the identification as chrysotile, a fibrous variety of serpentine.

The asbestos fiber is most commonly a light yellowish green, but variations to light green and nearly white have been observed. Locally the asbestos has a marked copper-color, believed due to iron oxide stain. In all variations a pronounced silky luster characterizes the fibrous nature of the mineral. The asbestos consists of cross-fiber (approximately 90 degrees to the vein wall), angle or diagonal fiber (fiber makes an angle of 60 degrees or less with the vein wall), and slip fiber (essentially parallel to and/or coincident with shears in the serpentine). In most cases the chrysotile is intimately associated with massive serpentine which is usually a yellow green.

The genetic relationship between the intrusive gabbro and the serpentinized (with chrysotile) carbonate has been indicated above. At the No. 3 mine actinolite (an iron rich amphibole) is found in the limestone at the contact with the gabbro. There appears to be a relationship between the presence of amphibole and poorer elasticity in the associated chrysotile. The presence of amphibole might also indicate higher temperature-pressure conditions of formation than conditions indicated by serpentine.

Development of the Deposits

The asbestos deposits have been partially explored at several points along the main zone, previously referred to, and at other points to the east of the main zone. Virtually nothing is known of the earlier mining operations, but some production was reported in 1925 and

presumably there was some production until mining operations ceased in 1938, and the operator, the Montbestos Mining Co. became defunct. The Madisonian Mining and Milling Co. holds clear title to 54 lode claims in the lower valley of Little Mile Creek and the adjacent ridge to the north. The claims and their relations to the terrain and the major rock units are shown on Plate I. Claim locations were furnished by the company. Subsequent surveys show that the claims were not correctly located, and it is quite unlikely that any asbestos deposits will be found on the claims numbered from Four through 33, as no carbonate occurs within their boundaries.

A poorly located and excessively steep road connects the workings on the ridge with the camp in Little Mile Creek. Another excessively steep road connects the General Joffre prospect with the camp. (See Plate II). The abandoned mill of the Montbestos Mining Co. is located about 600 feet southest of the camp. All the milling equipment was removed during World War II.

No detailed estimates of the asbestos reserves have been made pending additional necessary information to be obtained under the exploration program of Stage II. Rough estimates of Inferred ore[1]/ in and adjacent to the Nos. 1, 2, and 3 mines are given below:

No. 1 Mine

15x30x70' = 31500 cu. ft. or 2560 tons of ore. Fiber est. at 4% (12.3 cu. ft. est./ ton)
Chrysotile fiber estimated (inferred) at 102 tons, of which it is believed that from one to two tons will be Crude No. 1

No. 2 Mine (Same factors used)

5x20x47' = 4700 cu. ft., or 380 tons of ore. Fiber est. at 2½% or 9.5 tons.

No. 3 Mine

9x25x20' = 4500 cu. ft., or 365 tons of ore. Fiber estimated at 3% of which as much as 0.5% may be Crude No. 1. Fiber tonnage estimated at 10.9 tons, of which 1.6 tons might be Crude No. 1.

It must be borne in mind that the foregoing figures are very rough and do not include estimates of possible ore bearing ground between the Nos. 1 and 2 mines, nor do they include estimates of fiber on dumps.

1/ Inferred Ore, is ore for which quantitative estimates are based largely on broad knowledge of the geologic character of the deposit and for which there are few, if any, samples or measurements. The estimates are based on an assumed continuity or repetition for which there is geologic evidence; this evidence may include comparison with deposits of similar type. Bodies that are completely concealed may be included if there is specific geologic evidence of their presence. Estimates of inferred ore should include a statement of the special limits within which the inferred ore may lie. Quoted from Forrester, J.D., Principles of Field and Mining Geology. John Wiley & Sons, Inc., New York, 1946.

Estimates of ore reserves in the old asbestos mine cannot be made until the workings are accessible. Within the upper portion of the workings reached via the air shaft, there is a favorable zone of chrysotile-bearing serpentine rock. It is quite likely that considerable tonnages of chrysotile still exist in place in the mine. The intervening prospects between the old mine and the Nos. 1 and 2 mines do not expose a sufficient amount of bedrock to make any estimates of ore reserves. It is expected that additionalyreserves will be found as a result of bulldozer stripping along the main chrysotile zone.

In summary, an asbestos-bearing zone approximately 3/4 mile in length is indicated as a result of preliminary geologic study. Within this zone the area around the Nos. 1 and 2 mines appears to hold the greatest promise for development, and it should be explored first. The No. 3 mine appears to have a small tonnage of fairly long fiber asbestos, which in general has a lower elasticity than fiber from the Nos. land 2 mines. The old mine contains good showings of asbestos in place and may have sufficient ore reserves to warrant mining.

Recommendations for exploration (Stage II)

The following recommendations for exploration and preparation for mining should furnish much of the additional geologic information needed for a more complete appraisal of the asbestos deposits, and for determination of the reserves. It is likely that some of the recommendations will have to be revised as a result of new information obtained from theeexploratory operations, but it is unlikely that drastic modification should prove necessary.

The northernmost, sheared portion of the main asbestos-bearing zone appears to offer the greatest promise for development. The following recommendations pertain specifically to this area.

1. Sampling the dumps at the Nos. 1 and 2 adits. The dump materials at these adits consists mainly of finely comminuted serpentine and chrysotile fiber. Sampling should remove all of the dump material estimated between 1 and 2 tons. These samples should be used for: a) fiber grading methods, either in the mill of Interstate Products Company of Bozeman, Montana, or some other mill equipped for the purpose, b) Determination of best method (s) of separating fiber from serpentine, and c) Analyses to determine the type and amount of undesirable impurities, if any.

2. Stripping overburden from the sheared serpentine zone adjacent to the contact at the Nos. 1 and 2 adits, to determine the southern extent of this asbestos zone. No information is available concerning the southern limit of this zone.

3. Sampling the serpentine zone exposed by the stripping operations to determine the size and tenor of the asbestos-bearing zone. Channel samples taken across the strike would probably contribute the most information.

4. In conjunction with the bulldozer stripping operations, it is recommended that a new mine access road should be constructed between the workings on the ridge (Nos. 1 and 2 mines), the old mine and the intervening prospects. The present road is too steep (At some places up to 53 per cent!), and potentially too dangerous for trucks, and it is badly located and constructed (Switchbacks are improperly constructed, road badly located with respect to terrain and slopes of high snow retention that would delay access ridge properties in the spring) It is estimated that the proposed road, constructed along the south side of the ridge north of Little Mile Creek and in Death Canyon, and linking all the mining properties, could be constructed in 10 shifts with a D-8 bulldozer; 20 shifts with a D-6.

Additional recommendations covering other parts of the area:

5. The main adit of the old asbestos mine should be opened to determine the quantity and tenor of the ore reserves still in place, and for appraising the mine for renewed mining operations.

6. Sampling the asbestos ore in the upper workings, the air shaft, the stopes, and the flooded workings to determine the tenor of the ore for the purpose of estimating volume and grade of reserves.

7. Bulldozer stripping and/or test pits (followed by sampling) in the main zone between the old mine and the Nos. 1 and 2 mines. This should providedgeologic data to fill the gaps between the mines.

8. Geologic reconnaissance of the region around the Little Mile Creek area to obtain geologic information which would help in determining: a) probable extent of the gabbro intrusive, b) extent of the carbonate rocks, c) regional structure which would assist in clarifying the local structure, and d) possible age relationships among the rock units and the mineral deposits.

Respectfully submitted,

C. T. Brooks, Geologist

July 15, 1952
Little Mile Creek Camp

140

FILE COPY
SURNAME:

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

May 7, 1952

Memorandum

To: L. G. Houk, Chief
Non Metallic Division

From: J. L. Hofflund
Chief Counsel

Subject: Madisonian Mining and Milling Co., Inc., DMRA-2360

Reference is made to a copy of a letter dated April 14, A. E. Weissenborn to Chairman, Operating Committee, to which is attached a letter dated April 8, C. A. Lester, President, Madisonian Mining and Milling Co., Inc., to A. E. Weissenborn, all to the effect that 4 out of some 54 unpatented mining claims, described in the contract, are the subject of a suit to quiet title to establish the operator's ownership.

In view of Mr. Weissenborn's letter of April 14, I think that we can ignore the statement that the 4 claims are the subject of the suit to quiet title.

However, I know from the copy of the contract submitted here, that Article 2(b) of the contract form stating that the operator is the lessee, was not stricken out. The contract was not submitted to this office for approval before signature by the Administrator. I think that the defect can be ignored but such errors should not appear in contracts that have been signed by the Administrator.

J. L. Hofflund

N.S
R+R

J. L. Hofflund
Chief Counsel

JLHofflund/ema
cc: Mails & Files
J. L. Hofflund
Chron.

OFFICE OF THE ADMINISTRATOR

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

So. 157 Howard Street
Spokane 4, Washington

April 14, 1952

2360

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

Dear Sir:

Enclosed are four copies of the signed contract of the Madisonian Mining and Milling Co., Inc., Idm-E272. Also attached is a letter from Mr. C. A. Lester, the President of the company, with reference to four unpatented claims. This letter was written at my suggestion. Mr. Lester was reluctant to sign the contract because of the statement in Item 2 (a) of the contract form. The reason for this is that the title of the property is in the technical process of being quieted. Mr. Lester explained to me that there is no adverse interest as far as he knows, but this is just part of a formal process of legally quieting title. He had expected to have this accomplished before the contract was approved, but because of delay in starting the action it has not been completed.

Actually the matter does not make a great deal of difference because the four claims in reference cover only a small part of the area and the bulk of the exploration will be performed on the other 50 claims. I judge also that Mr. Lester's right to the property is probably as good or better than is the case with a number of other contracts we have in force.

Sincerely yours,

A. E. Weissenborn

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

Enclosures.

cc: USBM

Madisonian Mining and Milling Co., Inc.
ASBESTOS and ASBESTOS PRODUCTS

Phone 862 — P. O. Box 538
204 South Wallace Ave.,
Bozeman, Montana

April 8, 1952

Mr. A. E. Weissenborn
Executive Officer
Region II
Defense Minerals Administration
South 157 Howard Street
Spokane, Washington

Dear Mr. Weissenborn:

This confirms my understanding of our conversation this forenoon concerning the legal technicalities of the four mining claims:

No. 1 Orphan Girl
No. 2 Lucky Boy
No. 3 Amended Location of Joffre
No. 4 Queen Anne

As I told you in our conversation, I am the owner of the foregoing claims, I am in possession of them, and to the best of my knowledge and belief am entitled to possession. I wish to point out, however, that court action is now in process to formally quiet title on the above claims.

Very truly yours,

C. A. Lester

C. A. Lester
President

FILE COPY
SURNAME:

Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C. 600

1952

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

Subject: Docket No. DMEA-2360 - Asbestos
Madisonian Mine
Madison County, Montana

Dear Mr. Weissenborn:

Pursuant to our telephone conversation, there are transmitted herewith the original and five copies of the contract covering the subject exploration project which I have signed for the Government with register number and effective date as shown. The total on the Contract Form 200 has been corrected to conform with the total on Exhibit A. Please replace the contracts previously sent to you with those enclosed.

Sincerely yours,

C. O. Mittendorf

3/21

Acting Administrator
Defense Minerals Exploration
Administration

Enclosures 6

LGHouk:gad 3/21/52

Copy to: Admin. Reading File
Dr. Bowles, 3522
Mr. Norton, G-232, GSA Bldg.
Docket File
Mr. Houk

FILE COPY
SURNAME:

Chapman
Houk

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

600

MAR 1 1 1952

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

Subject: Docket No. DMMA-2360
Asbestos
Madisonian Mine
Madison County, Montana

Dear Mr. Weissenborn:

Please find herewith the original and five copies of a contract covering the subject exploration project which have been signed by this office for the Government with register number and effective date as shown.

If the contract meets with your approval, present it to the Operator for his approval and signature. If any provisions are unsatisfactory to the Operator, return all copies to this office along with the suggested changes for consideration.

After signing the contract, one copy is to be given to the Operator, one copy retained for your files, and the remaining copies, including the original, are to be returned to this office as soon as possible.

A copy of the contract required by the Regional Finance Office will be forwarded directly by the Washington Finance Section.

Sincerely yours,

(signed) FRANK E. JOHNSON (HB)

Chairman, Operating Committee
Defense Minerals Exploration
Administration

Enclosures - 6

Approved:

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

T. P. Thayer (HB)
Member, Geological Survey

TLChapman:mp
3/5/52
cc: Adm. Reading File
Oliver Bowles, Rom 3522
J. J. Norton, G-232, GSA Bldg.
Mr. Houk
Docket File

FILE COPY
SURNAME:

Koontz

UNITED STATES
DEPARTMENT OF THE INTERIOR 140
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

March 3, 1952

Memorandum

To: Acting Administrator

From: Chief Counsel

Subject: Madisonian Mining and Milling Co.,
Docket No. DMRA-2360

The attached seven copies of a draft of an exploration project contract in this case is in satisfactory legal form and is approved by this office.

Your file in this case is returned.

J. L. Hofflund

M. S
R+R

J. L. Hofflund
Chief Counsel

Attachments

CJKoontz/em

Copy to: Mails and Files
J. L. Hofflund
C. J. Koontz
chron.

Bd

Madisonian Mining and Milling Co., Inc.
ASBESTOS and ASBESTOS PRODUCTS

Phone 862 — P. O. Box 538
204 South Wallace Ave.,
Bozeman, Montana

February 19, 1952

United States Department of the Interior
Defense Minerals Administration
Washington 25, D.C. 600

IN RE: Docket No. DMEA- 2360 - Asbestos
East Mile Creek Group
Madison County, Montana

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 21 1952

Attention Lawrence G. Houk, Acting Chief!
Non-Metallic Minerals Division
Defense Minerals Exploration
Administration

Dear Sir:

Your letter of December 13, 1952 received and we give you the following information:

Annex I

Our claims are:

(1) Orphan Girl Lode Mining Claim, amended location, Filed July 6, 1918 Book 25 Lode Locations, page 631.

(2) Lucky Boy Quartz Lode Mining Claim, amended location, Filed July 6, 1918, Book 25 Lode Locations, Page 632.

(3) Amended Location, Joffre Lode Mining Claim, Filed July 6, 1918, Book 25 of Lode Locations, page 634.

(4) Queen Anne Lode Mining Claim, Amended Location, Filed July 6, 1918 Book 25 Lode Locations, page 635.

All of the above are recorded in the office of the County Clerk and Recorder of Madison County, Montana.

(5) Jackpot Quartz Lode Mining Claim Filed November 6, 1951 in Book 36 Lode Locations page 333.

(6) Urchin Quartz Lode Mining Claim Filed November 6, 1951 in Book 36 Lode Locations page 335.

(7) Orphan Boy Quartz Lode Mining Claim Filed November 6, 1951 in Book 36 Lode Locations, page 337.

Phone 862 — P. O. Box 538
204 South Wallace Ave.,
Bozeman, Montana

(8) Lucky Girl Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 Lode Locations, page 339.

(9) Millsite No.One Quart Lode Mining Claim, Filed November 6, 1951 in Book 36 Lode Locations, page 341.

(10) No. Four Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 343.

(11) No. Five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 345.

(12) No. Six Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 347.

(13) No. Seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 349.

(14) No. Eight Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 351.

(15) No. Nine Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 353.

(16) No. Ten Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 Lode Locations, page 355.

(17) No. Eleven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 357.

(18) No. Twelve Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 359.

(19) No. Twenty-four Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 361.

(20) No. Twenty-five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 363.

(21) No. Twenty-six Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 365.

(22) No. Twenty-seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 367.

(23) No. Twenty-eight Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 369.

Phone 862 — P. O. Box 538
204 South Wallace Ave.,
Bozeman, Montana

(24) No. Twenty-nine Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 371.

(25) No. Thirty Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 373.

(26) No. Thirty-one Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 375.

(27) No. Thirty-two Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 377.

(28) No. Thirty-three Quartz Lode Mining Claim, filed November 6, 1951 in Book 36 of Lode Locations, page 379.

(29) No. Fifty-one Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 381.

(30) No. Fifty-two Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 383.

(31) No. Fifty-three Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 385.

(32) No. Fifty-four Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 387.

(33) No. Fifty-five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 389.

(34) No. Fifty-six Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 391.

(35) No. Fifty-seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 393.

(36) No. Fifty-eight Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 395.

(37) No. Fifty-Nine Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 397.

(38) No. Sixty-seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 399.

(39) No. Sixty-eight Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 401.

Phone 862 — P. O. Box 538
204 South Wallace Ave.,
Bozeman, Montana

(40) No. Sixty-nine Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 403.

(41) No. Seventy Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 405.

(42) No. Seventy-one Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 407.

(43) No. Seventy-two Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 409.

(44) No. Seventy-three Quartz Lode Mining Claim, Filed November 6, 1951, in Book 36 of Lode Locations, page 411.

(45) No. Seventy-four Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 413.

(46) No. Seventy-five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 415.

(47) No. Seventy-six Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 417.

(48) No. Seventy-seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 419.

(49) No. Seventy-eight Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 421.

(50) No. Seventy-nine Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 423.

(51) No. Eighty-seven Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 425.

(52) Cougar No. Ninety-four Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 427.

(53) No. Ninety-five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 429.

(54) No.One Hundred Twenty-five Quartz Lode Mining Claim, Filed November 6, 1951 in Book 36 of Lode Locations, page 431.

Madisonian Mining and Milling Co., Inc.
ASBESTOS and ASBESTOS PRODUCTS

Phone 862 — P. O. Box 538
204 South Wallace Ave.,
Bozeman,. Montana

All of the above filings being in the office of the County Clerk and Recorder of Madison County, Montana at Virginia City, Montana.

We trust that this is the information that you desire.

Very truly yours,

C. A. Lester

C. A. Lester

CAL:fjh

P.S:
Beginning at No. 10 above, the names of the claims are numbers written out as shown, that is No. 10 above is "Four" and so forth on through the balance of the claims.

C.A.L.

IN REPLY REFER TO:
G-MD-DHK

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

FEB 19 1952

February 18, 1952

Supplemental Memorandum - - DMEA 2360

A copy of the letter of transmittal accompanying DMEA-2360 has been received and materially changes the picture. No copy of Klepper's report to Mittendorf (June 1951) or Youngberg's report to Mittendorf (October 3, 1951) can be located.

The field team's recommendation that the loan be granted sounds acceptable, but only under the following conditions.

1. The program be set up in two stages with most or all of the geologic mapping to be completed as stage one before stage two is approved.

2. Stage two will consist of such exploration by bulldozer and mining as the field team approves.

3. After the company has decided on a geologist that can and will do the mapping, he should also be approved by the field team. An incompetent geologist would be unable to handle the project and the money would be completely wasted.

I agree completely with the field team that bulldozing and drilling should not start until after the geologic mapping is completed or well under way. The known areas of mineralization have already been unsuccessfully prospected at great expense (Mining Review) and Youngberg states that further prospecting in the immediate area is unlikely to locate anything different. The second stage of exploration is dependent on the first and cannot satisfactorily proceed simultaneously with it.

Donald H. Kupfer

Donald H. Kupfer

FILE COPY
SURNAME:

Chapman
Mutt

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C. 600

FEB 13 1952

Air Mail

Madisonian Mining & Milling Co.
Box 538
Bozeman, Montana

Subject: Docket No. DMEA-2360 - Asbestos
East Mine Creek Group
Madison County, Montana

Gentlemen:

In writing up a contract for exploration work on your claims in Madison County, Montana, we find that we do not have the names of these claims.

Will you please furnish us with the following data?

Name of claim.
Date of location.
Book and page number of recording.
Date of recording of last assessment work.

Sincerely yours,

cc 2/13/52

Lawrence G. Houk, Acting Chief
Non-Metallic Minerals Division
Defense Minerals Exploration
Administration

TLChapman:gad
2/13/52

Copy to: Admin. Reading File
Docket File
Mr. Bowles, 3522
Mr. Norton, G-228, GSA Bldg.
Mr. Houk

IN REPLY REFER TO:

G-MD-DHK

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

REVIEW OF APPLICATION DMEA-2360 February 8, 1952

Memorandum

To: Non-Metallic Minerals Division, DMEA

From: Donald H. Kupfer, U. S. Geological Survey

Commodities: Asbestos (chrysotile) and talc.
Applicant: Madisonian Mining and Milling Co.
Name of Property: Cliff Lake, East Mile Creek, and/or Montbestos
Location of Property: Sec. 25, T12 S, R2E, Madison County, Montana
Applicant's requests: 90% of $24,240.00
Summary of applicant's proposal: Prepare geologic and topographic maps of property, bulldozing to test likely areas, then bulk sampling and test milling. The company has apparently been formed for the purposes of exploration.
Sources of information on applicant's property:
(A) Mont. Bur. Mines & Geol., Memo. 27, p. 39-40, 1948
(B) Min. Review, vol. 34, No. 44, p. 5-6, 1932
(C) USBM's I. C.-6790, 1934
Brief description of deposit: Gabbroic intrusions into marble are serpentinized and veinlets of asbestos fiber 1/16-1/2 inch wide occur in the serpentine and marble. Discovered in 1890; prospected in 1900, 1917(?), 1924-5(?), 1930-35; 500-600 feet of underground workings.
No significant talc is likely or expected.
Additional information needed from applicant:
(1) Give a description of known workings, especially the asbestos showings
(2) Where did the samples sent to A. J. Walcott Company come from? How were they collected?
(3) What information do you have on past operations? Why did they fail? Why do you expect to succeed?
(4) Do you have a geologist in mind to map the deposit? If so, who? What is his experience?
(5) What is the geologist's plan of operation? How does he intend to use the caterpillar, Jackhammers, wagon drills? Or is the latter intended for a second and later stage of operation?
Recommendation: Ask applicant for supplemental data.

Reasons for recommendation:
This application has both favorable and unfavorable aspects. Apparently the asbestos is chrysotile asbestos of favorable fiber quality. The deposit is relatively unknown and apparently has never been adequately explored - - - or at least it is not adequately described in the literature. In short, it is a locality apparently worthy of further exploration.

Reasons for recommendation (cont.)

On the other hand, the applicants data is very incomplete. No map has been submitted other than a claims map. Considerable exploration has been done in the past, and production has been attempted without success. Some information on these past operations is desirable.

The USBM (I.C.-6790) states that the fiber is harsher and has less strength than the Arizona or Canadian asbestos.

The applicants plan to place most of their emphasis on a geologic investigation of the area, but this will only be of value if the geologist is competent. Information as to the geologist they plan to use and his qualifications are essential.

Donald H. Kupfer

Donald H. Kupfer

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 6 1952

February 6, 1952

Memorandum

To: Mr. Lawrence G. Hawk

From: Dr. Oliver Bowles

Subject: D M E A - 2360 Madisonian Mining and Milling Co.
Bozeman, Mont.

This deposit of chrysotile at Cliff Lake, Mont. has been known for many years and was developed in a small way between 1917 and 1922. Several samples of the fiber were submitted to the Bureau of Mines in 1951. Some of them are of good quality while others are low in tensile strength. No reports indicating the extent or nature of this deposit are available. As the deposit evidently contains chrysotile of spinning quality a field team report on the deposit is desirable in order to determine whether it is promising enough to justify an exploration loan.

Oliver Bowles

EXPLORATION

Subject: DMEA-2360
Re: Exploration Loan
East Mine Creek Group
February 4, 1952

Mr. C. A. Lester, President
Madisonian Mining & Milling Company
Box 538
Bozeman, Montana

My dear Mr. Lester:

This will acknowledge receipt of your application dated January 8, 1952 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2360 and referred to the Non-Metallics Division.

Kindly refer to DMEA-2360 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Acting Administrative Officer

7862

DMEA-2360

SA 2-4-62

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

So. 157 Howard Street
Spokane 4, Washington

Defense Minerals Administration
RECEIVED
FEB 1 1952

January 28, 1952

Reviewed by
DMEA OPERATING COMMITTEE
2-6-52
(date)/

MEMORANDUM

To: C. O. Mittendorf, Chairman, Operating Committee, DMEA

From: Field Team, Region II

Subject: Application from Madisonian Mining and Milling Company, Bozeman, Montana

Enclosed are four copies each of Form MF-100 and MF-103 submitted by the Madisonian Mining and Milling Company. This proposal has been the subject of numerous discussions between the applicant and Field Team representatives.

The applicant, under the name of Interstate Products Company, brought the property to the attention of the DMA office in Washington, D. C. and, following a telephone request from Mr. Waskey, Mr. M. R. Klepper and Mr. Val Freeman, both of the U. S. Geological Survey, made a field examination in June 1951. This report was forwarded to you. Actually two properties are involved: One, near Karst Camp, Montana, is an actual producer of tremolite asbestos, but although this product has some use in industry, it does not qualify under the DMEA program and will not be discussed further. The other, on the east slope of Mile Creek Valley, Madison County, Montana, has a number of showings of chrysotile asbestos, some of which appears to be of spinning grade. Mr. Klepper made a negative recommendation as far as a production loan was concerned but concluded that "as similar geologic conditions exist over a considerable area near this deposit, it is quite possible that careful prospecting might lead to the discovery of other deposits of chrysotile that contain fiber of greater length in greater concentration."

The Interstate Products Company did some additional trenching during the summer of 1951 and, at the request of Mr. C. A. Lester, President, another examination was made on October 3 by Mr. E. A. Youngberg of the U. S. Geological Survey. Youngberg's conclusions were somewhat similar to Klepper, viz:

"Observations at the three localities did not indicate that commercial quantities of chrysotile asbestos were present or would be found by further exploration. It is not impossible, however, that further exploration of the gabbro-limestone contacts might disclose small bodies of serpentinized magnesian limestone containing sufficient chrysotile asbestos to be mined commercially. An areal geologic map should be made to determine the presence of other exploration targets before consideration is given to further bulldozing or trenching. There are at present no known feasible exploration targets." This report was likewise transmitted to you.

Meanwhile, Mr. Weissenborn while in Washington had discussed the property with Mr. Waskey of the DMA. Mr. Waskey was very favorably impressed with the quality of samples submitted by the applicant and felt that the company should be encouraged to submit an application for a limited exploration program consisting essentially of geologic mapping and bulldozer trenching. On Mr. Weissenborn's return to Spokane, the situation was discussed with Mr. Lester with a statement that an application along the lines suggested would probably be favorably considered.

Following several conferences, representatives from the Bureau of Mines and from the Survey met with Mr. Lester and worked out the attached application with him. However, although Mr. Lester had assistance from the Field Team in preparing his application, the proposal is his own. Please note that the application is made under the name of Madisonian Mining and Milling Company, a company recently set up to develop the Mile Creek deposits.

The Field Team in general concurs with Mr. Lester's proposal. The amount involved came out somewhat larger than anticipated, but is probably defensible on the following grounds:

(1) The area is large (1,000 acres) and extremely rugged.
(2) Enough work should be done to prospect the property thoroughly or it should not be attempted at all.

Two other points give the Field Team some concern:

(1) The fact that the contract permits bulldozing to start immediately, whereas the Field Team felt that at least some geological mapping should be done before beginning to tear up the ground. However, Mr. Lester claims that he has several exposures ready for bulldozing and that a bulldozer will be needed to provide access roads to critical areas within the property and will thus facilitate the work.

(2) The contract provides for five miners in addition to a foreman, a geologist and necessary helpers. The Field Team had considered that three miners would be sufficient. Mr. Lester agrees that this would be true most of the time, but occasionally for short periods he might want to utilize a couple of extra men for opening the portals of old tunnels or for similar work.

On reviewing the application, two points appear to require clarification:

Under 7 (a) "One D-8 Caterpillar to be rented 60 days at $120 per day," means with operator.

Under 8 "5 miners 300 days at $16.00 per day," means 5 miners 60 days each (total of 300 man days) at $16.00.

It is hoped that the remainder of the application is clear.

This is a wholly different type of application than any handled through this office. It is certainly an exploration; in fact, it is more exploratory in nature than almost any of our present projects. For this very reason it is difficult to draw up a specific contract that will provide for all contingencies and yet not load the contract with items of expense that may or may not materialize.

In fairness to the applicant, a decision should be rendered now so that he will have time to find himself a competent geologist--a rather difficult task these days. The season is short and if anything is to be accomplished, work must begin right after the spring "break-up".

By DMEA Field Team, Region II

A. E. Weissenborn

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

M. E. Volin

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

Enclosures
cc: S.M. Shelton
M.E. Volin

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/9	Houk	600
3/10	Selfridge	120
		110
		220

600

Mr. E. Robert Adam
Room 2710
52 Wall Street
New York 5, New York

Dear Mr. Adam:

Reference is made to your special delivery letter of March 3, 1959, requesting additional information on DMEA-2360, Contract No. Idm-E272, Madisonian Mining and Milling Co.

We note you have purchased the property, that the Company files are not available, and that you will attempt to put this property into production. ~~Our letter of February 27 provided you with all the available public information on this property.~~

I regret ~~I must reiterate that the Government's evaluation of the results of the exploration work are for Government use only.~~ There is no Government lien against the property as no certification of discovery or development was made.

(If we can be of further assistance with additional information about this property?)

Sincerely yours,

(The information gathered by our field staff is for the purpose of protecting the Government interest. We do not make it available to the public. The Government is not liable for the effect of publishing our preliminary and perhaps to be completed, with possibly inaccurate data. As to the information supplied by the Madisonian Mining and Milling Co., we will be glad to furnish you with copies of such information if we receive written consent from a properly authorized representative of the company.)

Acting Director

LGHouk:gad 3/9/59
Copy to: Dir. R. File
Mr. Houk
DMEA-2360, Idm-E272

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
WASHINGTON 25, D. C. 600

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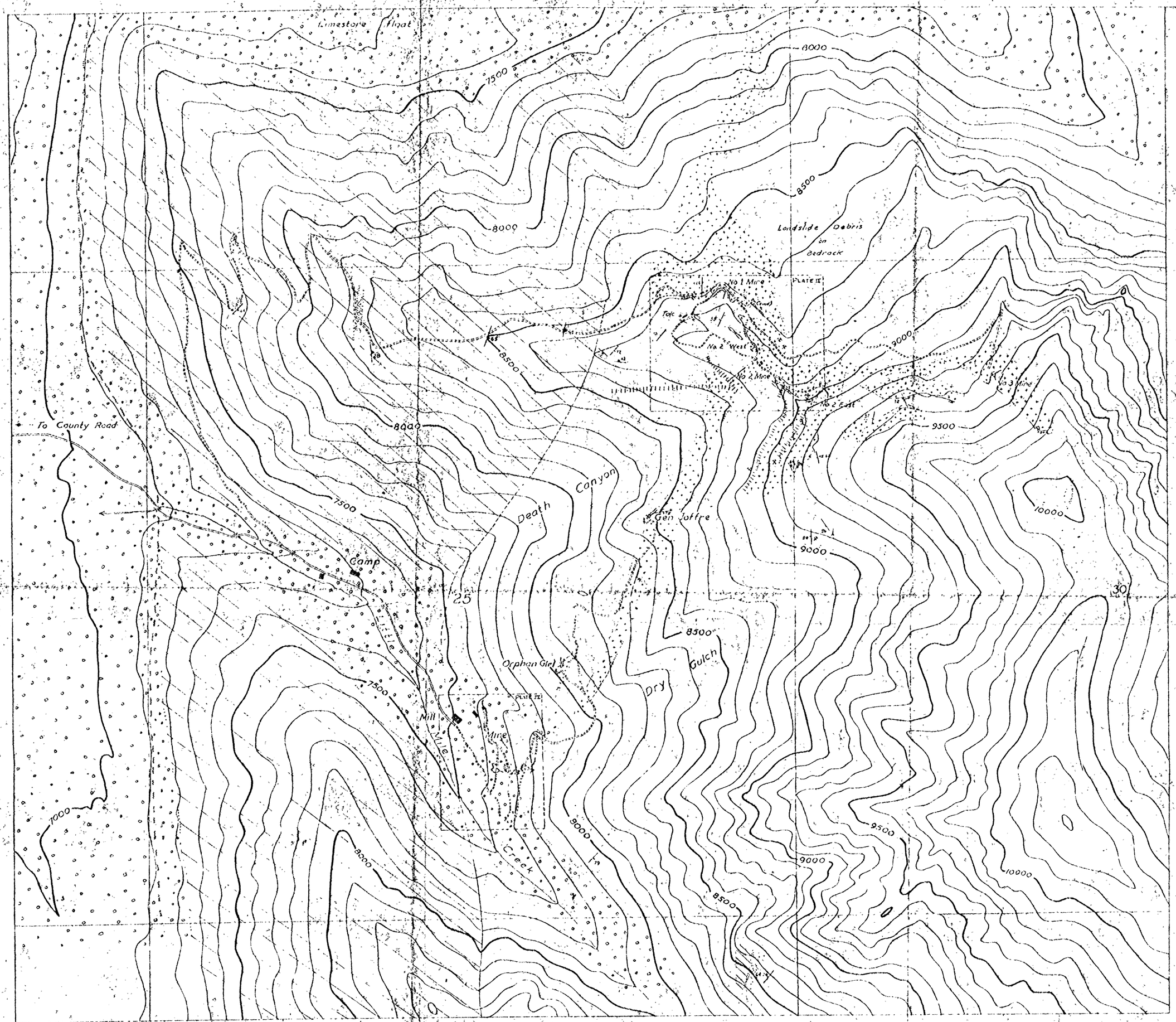
LGHouk:gad 3/9/59
Copy to: Dir. R. File
Mr. Houk
DMEA-2360, Idm-E272

Dates
Contract: 3-11-52
Completion: 11-11-52
Amendments:

Contract # Idm-C-272
D.M.E. # 2360 Assessor
Name: Madisonian Mining & Milling Co
Form: Long

CONTRACT ALLOWANCE	ITEM	JUNE AMOUNT PER FT	JULY-AUGUST AMOUNT PER FT	SEPT-OCT AMOUNT PER FT	AMOUNT PER FT	AMOUNT PER FT
150.00	Equipt rented (Stage I)		15000	15000		
2,773.00	Labor & Supervision (Stage I)	51989	277300	277300		
120.00	Supplies (Stage I)		12000	12000		
8,040.00	Equipment rented (Stage II)		162750	380283		
10,353.00	Labor & Supervision (Stage II)		172741	289750		
2,964.00	Supplies (Stage II)		18552	30920		
24,400.00		51989	658349	1005153		

Geologic mapping etc	395609	3.300	I + A
Trenching	221907	2000	O + S
Sampling	33580		
Roads & Trails	309243	2.5 miles 4 miles	O + S
Rehabil station	44994		
	1005153		



EXPLANATION

Alluvium (includes fluvio-glacial deposits

Carbonate Rocks (includes limestone and dolomite)

Chrysotile Zone usually in serpentine

Quartzite and/or Quartz Schist

Chlorite Schist (includes intercalated marbles and quartz-rich rocks

Gabbro (includes fine-grained varieties)

Bedding

inclined vertical

Schistosity

inclined vertical

Jointing

inclined vertical

Contacts

Dashed where approximate, dotted where inferred

Fault or Shear Zone

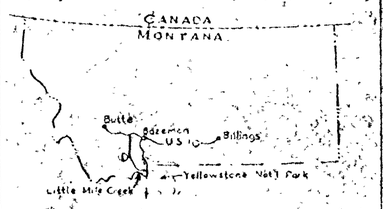
Adit

Prospect Pit

Bulldozer Trench

Road

Mine Dump



Index Map Showing Location of Chrysotile Deposits

Geologic Map of Chrysotile Deposits in the Little Mile Creek area, Montana.

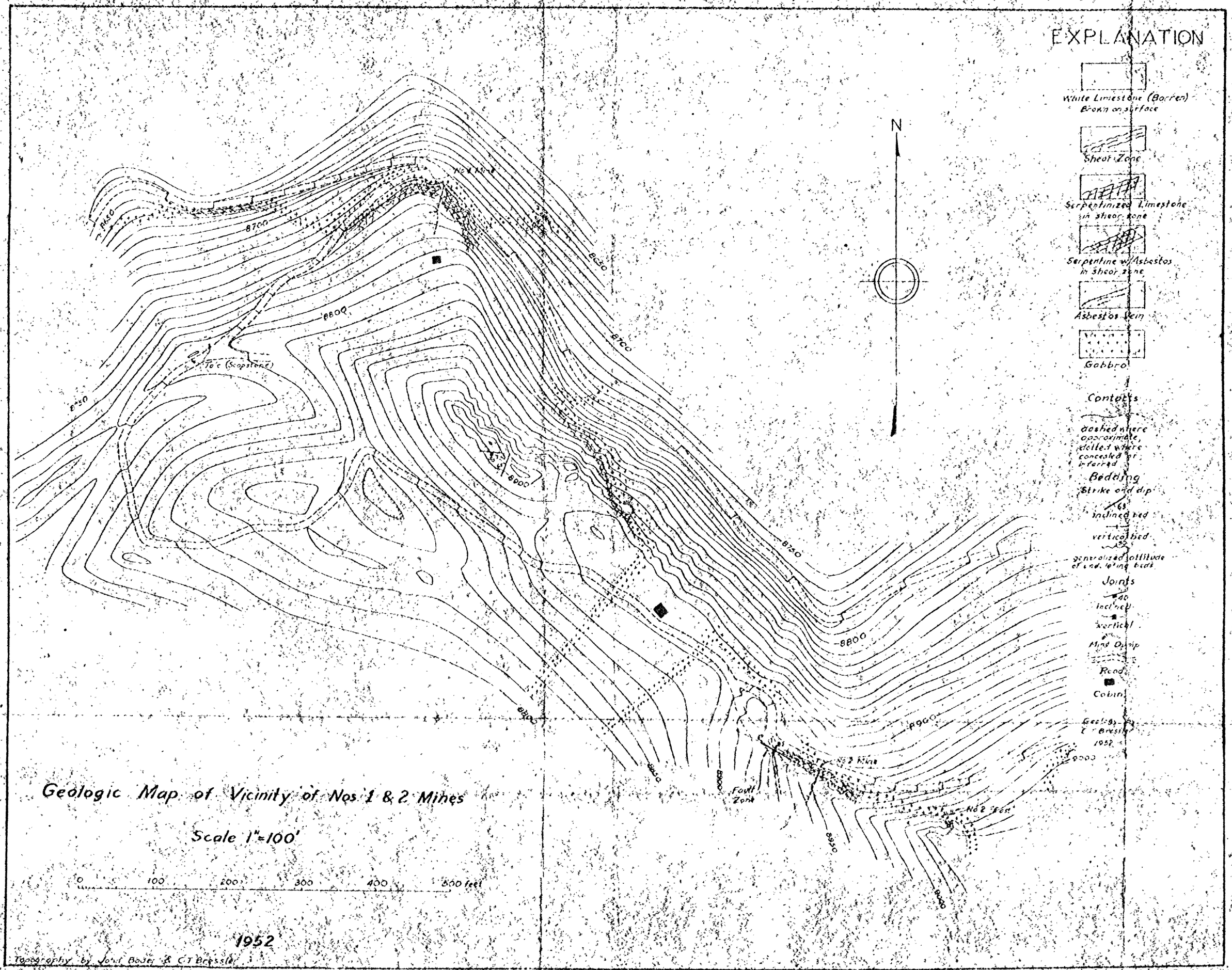
0 500 1000 1500 2000 2500 feet

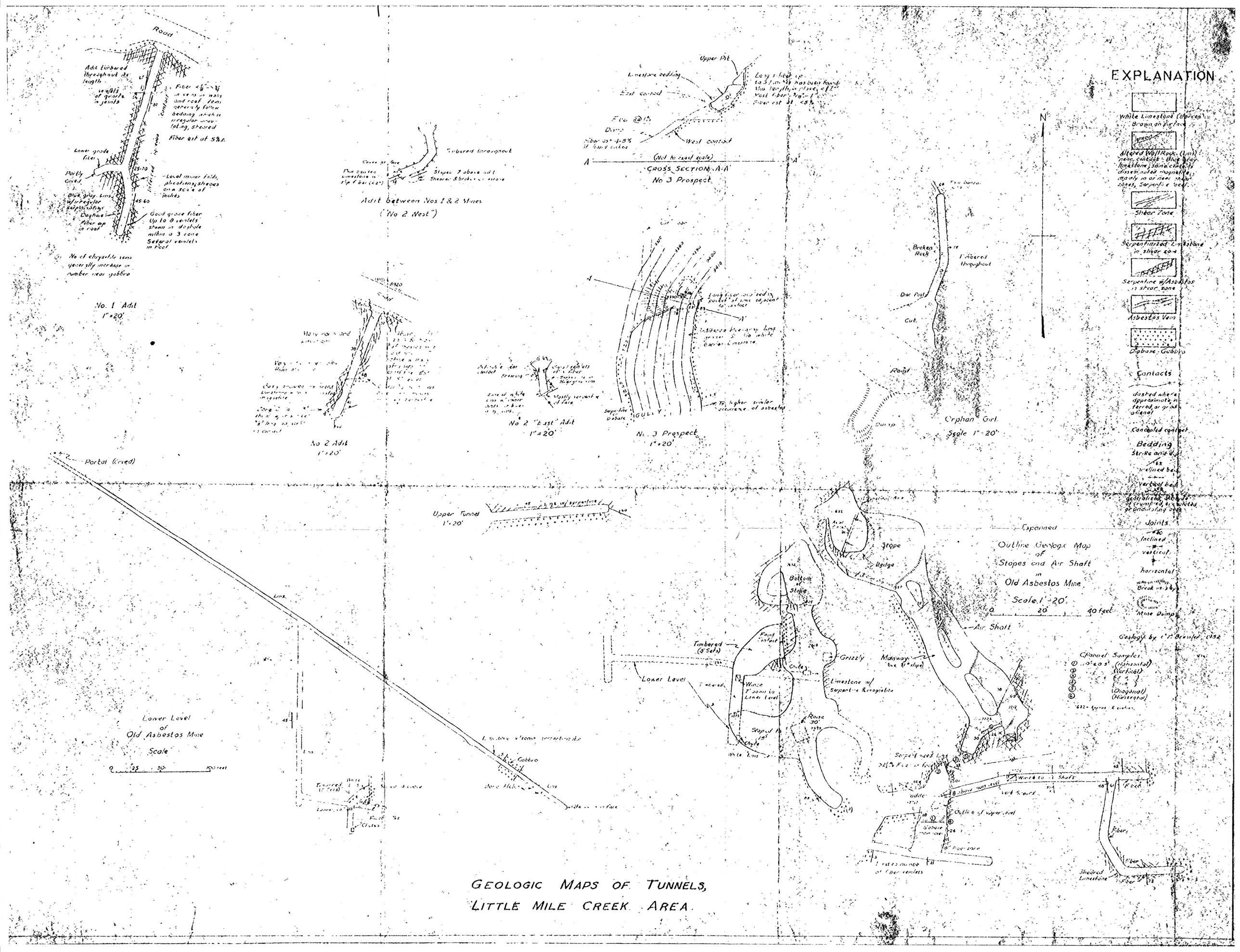
Contour Interval 100 Feet

1952

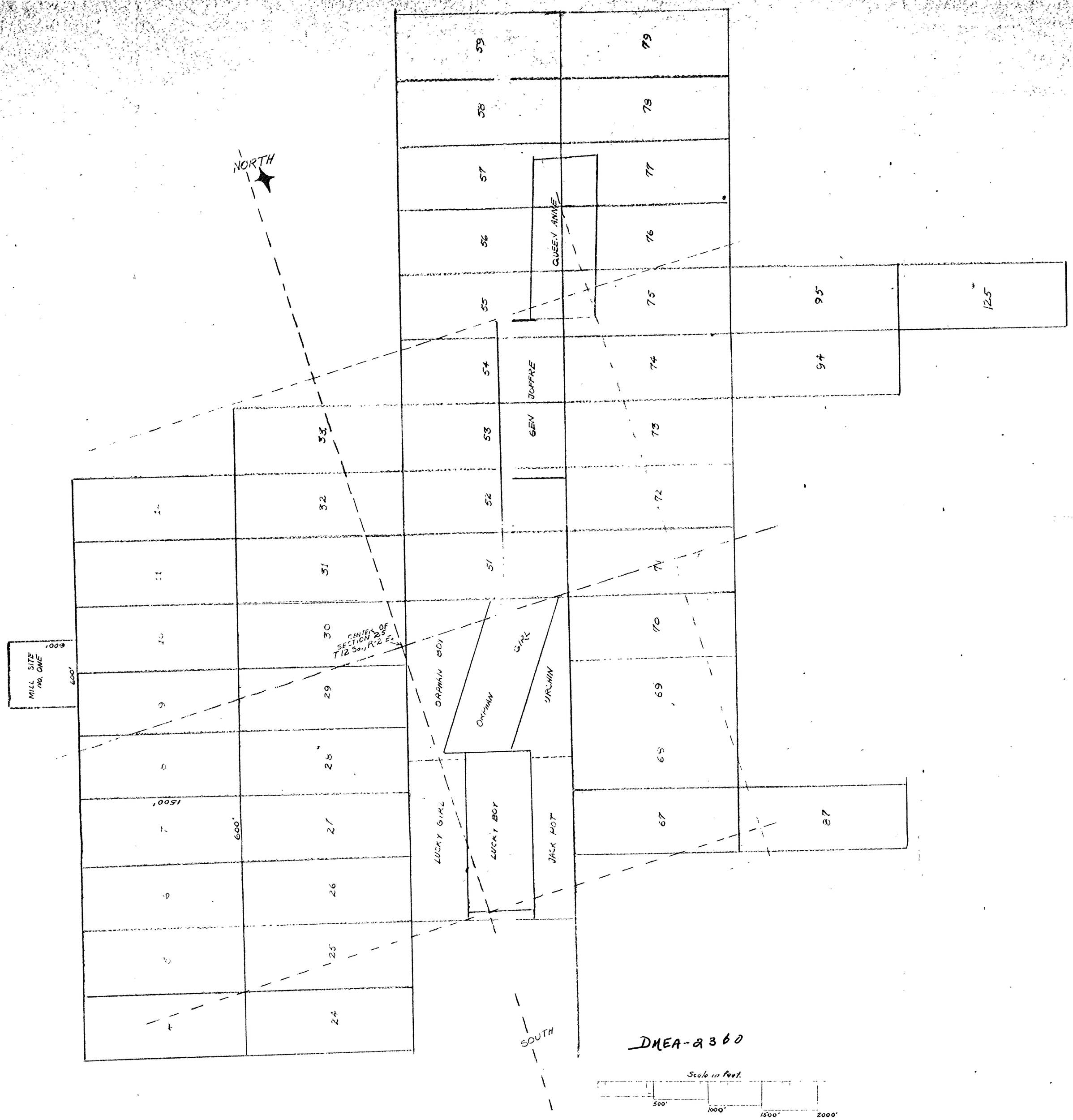
Topography modified from Missouri Basin Studies, Map Sheet No. 150 1947

Geology by C.T. Bressler, 1952


EXPLANATION
White Limestone (Barren)
Brown on surface
Shear Zone
Serpentinized Limestone in shear zone
Serpentine w/Asbestos in shear zone
Asbestos Vein
Gabbro
Contacts
dashed where approximate, dotted where concealed or inferred
Bedding
Strike and dip
inclined bed
vertical bed
generalized attitude of undulating beds
Joints
inclined
vertical
Mine Dump
Road
Cabin
Geology by C T Bressler 1952
N
8750
8700
8800
8850
8900
8950
9000
No 1 Mine
No 2 Mine
No 2 Vein
Fault Zone
Talc (Soapstone)
Geologic Map of Vicinity of Nos 1 & 2 Mines
Scale 1"=100'
0 100 200 300 400 500 feet
1952
Topography by John Boyer & C T Bressler



GEOLOGIC MAPS OF TUNNELS, LITTLE MILE CREEK AREA.



DMEA-2360

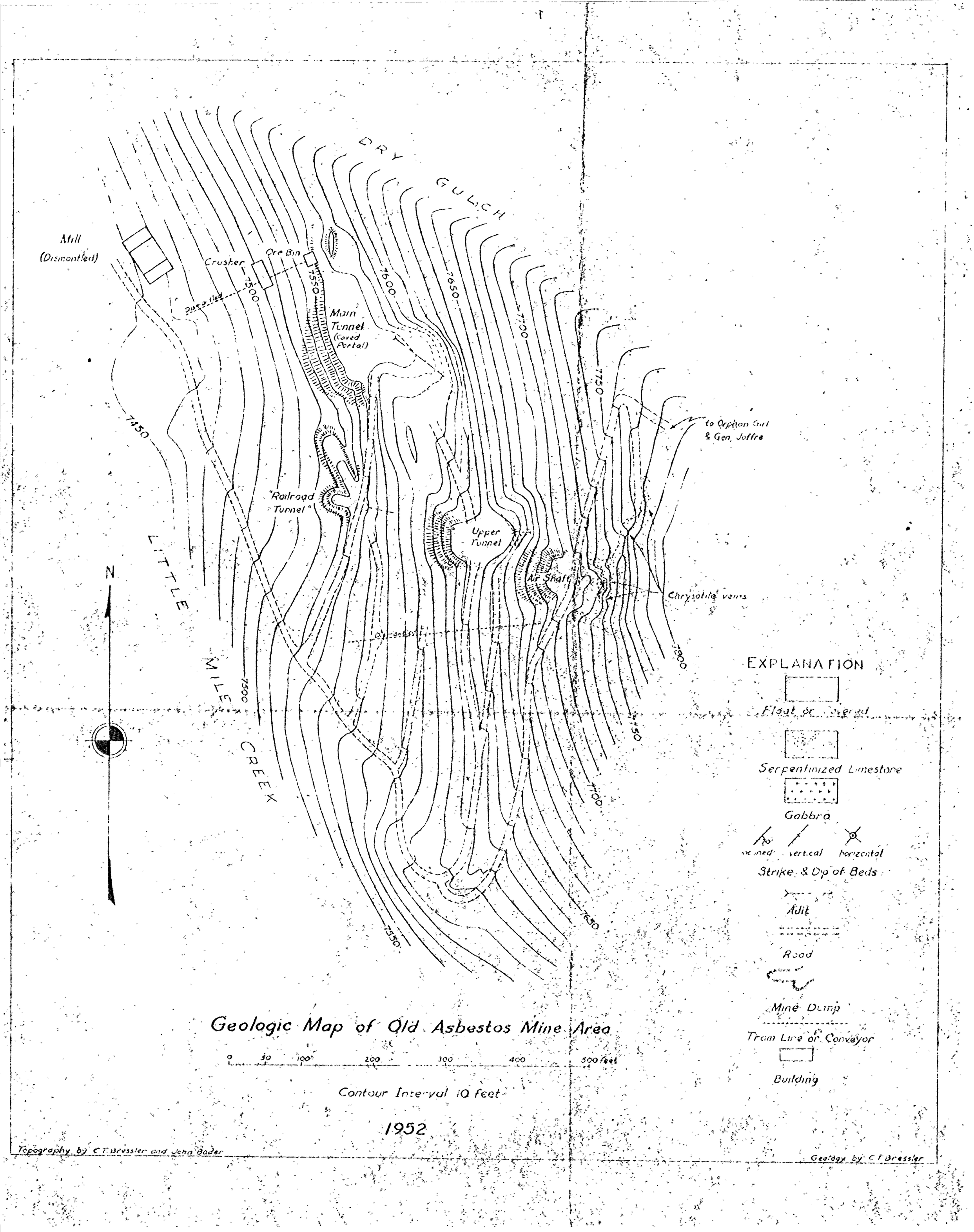
Scale in Feet.

500' 1000' 1500' 2000'

— MINING CLAIMS —
MADISON COUNTY MONTANA

EAST MILE CREEK GROUP

MADISONIAN Mining & Milling Co.



Geologic Map of Old Asbestos Mine Area