UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Terminated (or cancelled) without certification. DMEA No. 1875

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.
✓ Closing Letter
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 _____

wb 1/22/57
Reviewer's Initials

7973

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Fred Arrowood

R. F. D. #1

Waynesville, North Carolina

pertaining to Contract No. Idm-E314, Docket No. DMEA-1875, including Amendments Nos. 1, 2, 3 and 4, for the months of May, 1952 to March, 1953, inclusive, covering a project for the exploration of mica.

My review included an examination of the Monthly Reports (Forms MF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, consultation with the Executive Officer of the Regional Field Team, and a determination of the reasonableness and propriety of the costs.

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

(a) the administrative cost to the Government of an audit would be excessive in relation to the estimated amount of possible disallowances thereunder;
(b) the Monthly Reports were supported by documentary proof of the costs incurred under the contract; and
(c) a large portion ($2,730.00) of the costs were under the contract provision for payment by the Government on the basis of agreed estimated costs of units of work actually performed.

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

Total cost as billed by Contractor		$ 6,160.66
Exceptions:		
By DMEA Finance Officer	$ -0-	
Herewith (schedule attached)	106.50	106.50
Total Accepted Cost		$ 6,054.16

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 Five thousand four hundred forty-eight and 74/100 Dollars,

— $ 5,448.74 —

is considered valid and proper.

April 13, 1953

E. D. Talbert, Auditor

SCHEDULE OF EXCEPTIONS

Fred Arrowood DMEA-1875 Idm-E314

Exhibit "A" of the contract provided an "allowable maximum" of $200.00 for cleaning up old pits with a bulldozer. Amendment No. 1 provided for "hand labor not to exceed $200.00 for cleaning out old pits" in lieu of bulldozing.

Charges by the Operator were as follows:

May-June MF-104	- Labor	$ 35.50	
	Supervision	71.00	
July MF-104	- Labor	110.00	
	Supervision	90.00	$ 306.50
"Allowable Maximum"			200.00
Excess "for sole account of the Operator" per Article 5 of contract			$ 106.50

FILE COPY
SURNAME:

Anderson
Houk
Chamberlin

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

AUG 31 1953

Mr. Fred Arrowood
R.F.D. #1
Waynesville, North Carolina

Re: Docket No. DMEA-1875 - Mica
Little East Fork Mica Mine
Haywood County, North Carolina
Contract No. Dem-2314

Dear Mr. Arrowood:

This is with reference to the subject exploration contract between you and the Government.

The final audit of the contract expenditures and the final reports of the Operator and of the Field Team have been received and accepted by this Administration. A contract for the total amount of $6,400.00 was approved and the sum of $6,054.16 was expended, 90 percent of which, or $5,448.74, represented the Government's share. There were no unused materials, supplies or equipment to be disposed of for the joint account of the Operator and the Government. The exploration work was completed in a satisfactory manner.

Because the results of the exploration were unfavorable, it is not our intention to make a certification of discovery or development which would create a lien against the subject property. We are, therefore, closing our books and records with respect to this project. Your attention is called, however, to Article 7 (d) of the contract which requires the Operator to "keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract."

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

Sincerely yours,

C. O. Mittendorf (for)

Administrator

WCAnderson:gad 8/26/53
Copy to: Admr. R. File
Docket File
Field Team, Region VII
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

R.S. 8-31-53

CONTRACT AMENDMENT No.4

DMA-1875X, Idm-E314 (mica) Fred Arrowood,.

Contract Idm-E314, Docket No. DMA-1875, dated May 13, 1952, is hereby amended as follows:

Article 3 is amended to provide that the Operator is to complete the project within a period of 11 months from date of contract, instead of 10 months as amended by Amendment No. 3, dated December 24, 1952.

This amendment is necessary because of delays due to inclement winter weather.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be obligated to pay, or the percentage of the costs which the Government may be obligated to pay, under the provisions of Article 8 of the contract form.

March 10, 1953.

THE UNITED STATES OF AMERICA

By Robert A. Lawrence
Executive Officer, DMEA Field Team
Region 7

FRED ARROWOOD

By Fred Arrowood

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 1 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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JAN 7 1953

CONTRACT AMENDMENT NO. 3

DMEA-1875, Idm-E314 (mica).

Contract Idm-E314, Docket No. DMEA-1875, dated May 13, 1952, is hereby amended as follows:

Article 3 is amended to provide that the Operator is to complete the project within a period of 10 months from date of contract, instead of seven (7) months as amended by Amendment No. 2 dated September 22, 1952.

This amendment is necessary because delays in preparing for underground work have made it impossible to complete the job and the Forest Service ordered suspension of the work due to forest fire hazard.

> This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be obligated to pay, or the percentage of the costs which the Government may be obligated to pay, under the provisions of Article 8 of the contract form.

December 24, 1952.

THE UNITED STATES OF AMERICA

BY Robert A. Laurence

Robert A. Laurence, Executive Officer
DMEA Field Team, Region 7

FRED ARROWOOD

BY Fred Arrowood

CONTRACT AMENDMENT NO. 2

DMEA-1875, Idm-E314 (mica)

Contract Idm-E314, Docket No. DMEA-1875, dated May 13, 1952, is hereby amended as follows:

Article 3 is amended to provide that the Operator is to complete the project within a period of 7 months from date of contract, instead of 4 1/2 months, as provided in the original contract.

This amendment is necessary because delays in preparing for underground work have made it impossible to complete the job in the time originally specified.

> This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be obligated to pay, or the percentage of the costs which the Government may be obligated to pay, under the provisions of Article 8 of the contract form.

September 22, 1952

THE UNITED STATES OF AMERICA

By Robert A. Laurence

Robert A. Laurence, Executive Officer
DMEA Field Team, Region 7

FRED ARROWOOD

Fred Arrowood

OCT 1 1952
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DIVISION OF MINERALS
DEPARTMENT OF THE INTERIOR

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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OCT 1 1952

CONTRACT AMENDMENT NO.1

DMEA-1875X, Idn-E 314, (mica)

Contract Idn-E314, Docket No. DMEA-1875, dated May 13, 1952, between the UNITED STATES OF AMERICA and FRED ARROWOOD, is hereby amended as follows:

Under exhibit "A", description of the work, the third paragraph is amended to read "after completion of the road the old pits will be cleaned up by hand." Under estimated costs, page 2, the item for bulldozer is amended to provide for hand labor, not to exceed $200.00, for cleaning out old pits. Estimated breakdown of this item is:

Labor, 110 hours @ $1.00	$110.00
Supervision 60 hours @ $1.50	90.00
	$200.00

This amendment is necessary because it was impossible to get a bulldozer up the steep slope to the site; approval was made by the field engineers who examined the project. Cost of this portion of the work will not be affected by this change.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be obligated to pay, or the percentage of the costs which the Government may be obligated to pay, under the provisions of Article 8 of the contract form.

August 8, 1952.

THE UNITED STATES OF AMERICA

By Robert A. Laurence

Robert A. Laurence, Executive Officer
DMEA Field Team, Region 7

FRED ARROWOOD

Fred Arrowood

MF-200
(June 1951)
(Revised Feb. 1952)

DOCKET NO. [redacted]A 1875

COMMODITY Mica

Idm-E314

Government's Copy

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

IT IS AGREED this 13th day of May, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Fred Arrowood
R.F.D. No. 1
Waynesville, North Carolina

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of North Carolina, County of Haywood, described as follows: [3] This property is in Pisgah National Forest. The area is part of Tract 70, purchased from Sherwood Forests, Inc. Haywood County, North Carolina, located on Little East Fork of the Pigeon River. Begin at a point S. 74° 00'W. 275 feet from iron pipe on logging trail, thence S. 35° 00'E. 900 ft., thence S. 55° 00'W, 1200 ft., thence N. 35° 00'W. 1200 ft. thence N.55° 00'E. 1200 ft. thence S.35° 00'E. 300 ft. to point of beginning.
the Operator represents and undertakes: [4]

(*b*) That the Operator is a lessee, in possession and entitled to possession,

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.

ARTICLE 3. *Exploration project.*—The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for [5] Mica

in or upon the described land; and shall bring the project to completion within a period of 4½ months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided.

ARTICLE 4. *Performance of the work.*—(*a*) *Operator's responsibility.* The work shall be performed efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmens' compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. To the extent specified in Exhibit "A," attached hereto, the work may be performed by independent contractor or contractors; and work not specified in Exhibit "A" for performance by independent contractor may nevertheless be so performed upon amendment of Exhibit "A," as agreed to by the parties, to state the work to be so performed and the estimated unit costs thereof, as provided hereafter.

(*b*) *Independent contracts.*—Any independent contract for the performance of work shall be on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved), or on some basis that will indicate the amount due for work performed at any stage of the work to be performed under such independent contract. The Government shall not be nor be considered to be a party to any such independent contract, and the Government's right to terminate the exploration project contract under any of its provisions shall not in any manner be affected by reason of any such independent contract. If the reference in Exhibit "A" to any such independent contract states that the Government's approval thereof is required, the Government may refuse to participate in the cost thereof unless and until it has given its written approval of the independent contract.

(*c*) *Government may inspect.*—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.

ARTICLE 5. *Estimated costs of the project.*—A statement of the estimated cost of the project is set forth in Exhibit "A," attached hereto. Except insofar as any item of requirement or the estimated cost thereof set forth in Exhibit "A" is there or elsewhere designated as an "allowable maximum," such items of requirement and of related cost are estimates only, and may be exceeded to the extent that the Government may from time to time approve for the most economic and beneficial performance of the work within the limitation of the total aggregate estimate of costs. The Government's approval of any such excess over the estimate for an item of requirement or related cost will be signified by its approval and payment of any invoice or voucher for payment which expressly calls attention to such excess. Items expressly designated in Exhibit "A" or elsewhere as "allowable maximum," and the total aggregate estimated cost are limitations, and any excess therein will be for the sole account of the Operator in which the Government will not participate.

ARTICLE 6. *Allowable costs of the project.*—(*a*) The costs of the project in which the Government will participate are limited to the following:

(1) *Independent contracts.*—Payments to independent contractors under independent contracts listed in Exhibit "A." The estimated cost of any work to be performed under an independent contract is or shall be included in the estimate of costs in Exhibit "A" in terms of the estimated numbers of units of work to be performed, the estimated amount to be paid per unit, and the estimated total amount to be paid to the independent contractor, and such estimates shall be allowable maximums above which the Government will not contribute. Regardless of the provisions of any such independent contract, the Government will participate in the payments to the independent contractor only on account of work actually performed and that conforms with the provisions of the exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable and necessary. No such independent contract shall have the effect of increasing the estimated total cost of the exploration project contract nor the maximum amount which the Government will pay as provided in the exploration project contract.

(2) *Labor, supervision, consultants.*—Labor, supervision and technical services (including engineering and geological consultants), a schedule of which is included in the estimate of costs set forth in Exhibit "A." The requirements and related estimated costs for supervision and technical services are allowable maximums.

(3) *Operating materials and supplies.*—Necessary materials and supplies including items of equipment costing less than $50.00 each, and power, water, and fuel, a schedule of which is included in the estimate of costs in Exhibit "A."

(4) *Operating equipment.*—Any operating equipment to be rented or purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or the allowable depreciation, as the case may be, a schedule of which is included in Exhibit "A." Any items listed as owned and to be furnished by the Operator, and related initial allowable depreciation, are allowable maximums.

(5) *Rehabilitation and repairs.*—Any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and to be devoted to the purposes of the exploration contract, a schedule of which is included in the estimate of costs set forth in Exhibit "A." These items are allowable maximums.

(6) *New buildings, improvements, installations.*—Any necessary buildings, fixed improvements, or installations to be purchased, installed, or constructed for the purposes of the exploration work, with the estimated cost of each, a schedule of which is included in the estimate of costs in Exhibit "A." All of these items are allowable maximums.

(7) *Miscellaneous.*—Repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance and payroll taxes.

(8) *Contingencies.*—Such other necessary, reasonable direct costs of performing the exploration work, within the limit of the total aggregate estimate of costs, whether or not included in any schedule of costs in Exhibit "A," as may be approved by the Government in the course of the work, as indicated by its approval and payment of invoices and vouchers.

[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, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) The Government's payment in all cases will be based on actual, necessary costs (including contract unit prices) incurred not in excess of any "allowable maximum," and not in excess of the fixed percentage of the total aggregate estimated cost. Costs will be considered to be incurred only as they are or become due and payable.

(*c*) No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes) or any other indirect costs, 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.

ARTICLE 7. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operators shall provide the Government with monthly reports of work performed and costs (including contract unit prices) incurred under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of costs incurred on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) Compliance with requirements.—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *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. Upon the completion of the project or termination of the contract the Operator shall render a final account as provided in Article 12.

ARTICLE 8. *Payments by the Government.*—(*a*) The Government will pay 90 percent of the allowable costs incurred, as they accrue, in an aggregate total amount not in excess of $5,760.00, which is 90 percent of $6,400.00, the agreed, estimated total cost of the project in which the Government will participate; *Provided,* that until the Operator's final report and final accounting have been rendered to the Government, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract.

(*b*) The Government may make any payment or payments direct to independent contractors and to suppliers, for the account of the Operator, rather than to the Operator.

ARTICLE 9. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

(For instance: The percentage royalty on a net amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 10. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 11. *Title to and disposition of property.*—All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

ARTICLE 12. *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 worth while 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 dispose of any remaining materials, supplies, facilities, buildings, fixtures, and equipment in which the Government has an interest, for the joint account of the Operator and the Government in the proportion of their respective interests; shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; and shall pay to the Government its pro rata share of any money remaining.

ARTICLE 13. *Changes and added provisions.* _____

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Fred Arrowood
(Operator)

By Fred Arrowood

By C O Mitteudorf
Acting Administrator
Defense Minerals Exploration Administration

I, _____, certify that I am the _____ secretary of the corporation named as Operator herein; that _____, who signed this contract on behalf of the Operator, was then _____ of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

_____

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66328-1

EXPLORATION PROJECT CONTRACT
FRED ARROWOOD
LITTLE EAST FORK MICA MINE
DOCKET NO. DMEA-1875X

EXHIBIT "A"

Description of the Work

The work on this project consists of improving 2 miles of road and building 3/4 mile of new road, cleaning up old pits, and driving approximately 130 feet of tunnel.

The old road will be improved and the new road built on contract, estimated to take about 1½ months.

After completion of the road the old pits will be cleaned up with a bulldozer, estimated to take about 3 days.

A tunnel will be driven from the lower pit to follow along the pegmatite dike and to cut under the upper pit and workings. This tunnel will be approximately 130 feet in length and will be 30 feet below the workings of the upper pit. This work will take about 2 months.

The location, direction, and extent of the work is subject to the prior approval of the Government.

All subcontracts are subject to the approval of the Government in writing.

Estimated Costs of Project
(*Indicates allowable maximum)

130 feet of tunnel at $21.00 per foot, including all costs except those scheduled under (1) Independent contracts, and (2) Operating equipment -- to be rented. $ 2,730.00*

The Government will contribute to the costs of tunneling on the basis of this agreed, estimated unit cost in lieu of actual costs. The rest of the described work and those items of cost which are excepted from the tunneling will be contributed to by the Government on the basis of those actual costs specified in Article 6(a) of the contract form which are scheduled hereinafter.

(1) Independent Contracts

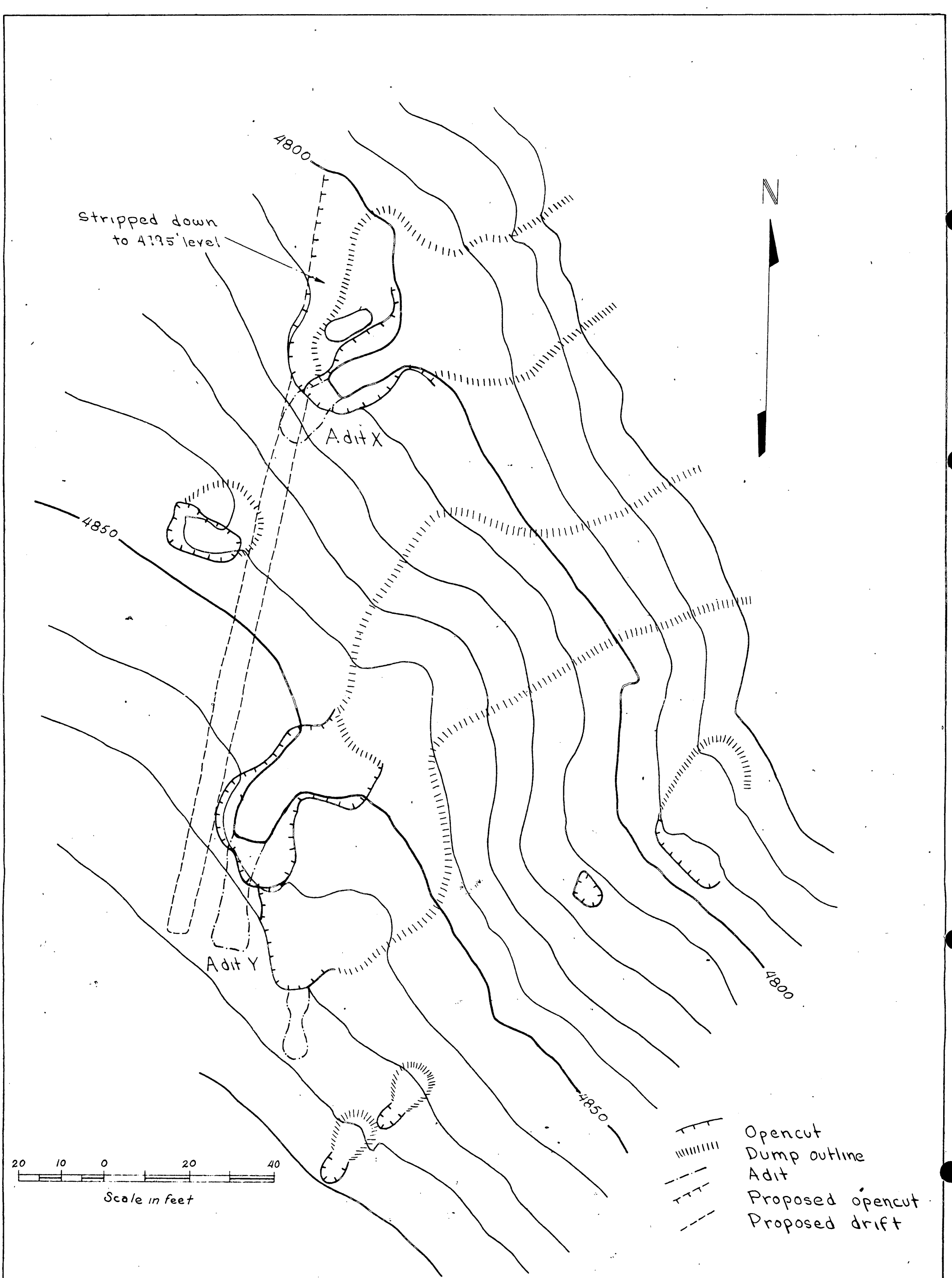
1 Bulldozer @ $10.00 per working hour, for 20 hours. (Includes gasoline, oil, maintenance, repairs, accessories, Operator, and all other costs)	$ 200.00*	
Improvement of 2 miles of old road, and construction of 0.75 miles of new road 1/	3,000.00*	$3,200.00*

(4) Operating equipment

To be rented

1 Compressor, $175 per month, 2 months	350.00	
1 Jackhammer, $60 per month, 2 months	120.00	470.00
Total cost of project		$6,400.00*
Government participation @ 90%		$5,760.00*

1/ Independent contract is subject to written approval of the Government.



Proposed Exploration
Little East Fork Mine Haywood Co. N.C.
Doc. No. 1875 X

Form 4-1100
(May, 1949)

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Washington 25, D. C.

Serial No. BLM-A 023790

(North Carolina)
(State)

Mica — Pisgah National Forest

MINERAL LEASE - ACQUIRED LANDS

This mineral lease entered into in quintuplicate this [illegible] day of [illegible], 19[illegible], by and between the United States of America, the lessor, through the Bureau of Land Management, and Fred Arrowood, the lessee, of Rt. 1, Waynesville, N.C., pursuant to Section 402 of the President's Reorganization Plan No. 3 of 1946, and regulations thereunder (43 CFR 200.31 et seq.); witnesseth:

SECTION 1. Rights of Lessee. In consideration of the rents and royalties to be paid and conditions and covenants to be observed as herein set forth the lessor grants to the lessee, subject to all privileges and uses heretofore duly authorized and prior valid claims, for a period of 10 years from the date hereof, the exclusive right to mine, remove and dispose of all the mica and associated minerals in, upon, or under the following-described tracts

The area is part of Tract 70, purchased from Sherwood Forests, Inc. and lies in Haywood County, N.C. located on Little East Fork of the Pigeon River. Begin at a point S. 74° 00' W 275 ft. from an iron pipe on logging trail, and running thence S. 35° 00' E. 900 ft, thence S. 55° 00' W 1200 ft, thence N. 35° 00' W 1200 ft, thence N. 55° 00' E. 1200 ft, thence S. 35° 00' E. 300 ft. to point of beginning,

containing 33.05 acres, more or less, together with the right to construct and maintain thereupon such structures and other facilities as may be necessary for the mining, preparation and removal of said minerals.

SECTION 2. In consideration of the foregoing, the lessee agrees:

(a) Production. To begin production within 24 months and to continue production thereafter unless operations are interrupted by strikes, the elements or casualties not attributable to the lessee. The lessor may grant reasonable extensions of time for the commencement of production, and may authorize suspensions of production for reasonable periods of time in the interest of conservation or when the lease cannot be successfully operated at a profit, or for other reasons when such action does not adversely affect the interest of the United States.

(b) Rental. To pay to the lessor annually in advance, beginning with the date of this lease, rental of $ 1.00 for each acre or fraction thereof for each lease year until production commences, the rental payment for the year in which production commences to be credited on royalties that accrue during that lease year.

(c) Royalty. To pay the lessor within 30 days after the end of each period prescribed in subsection (f) of this section a royalty of 8 per cent of the gross value of the minerals mined hereunder at the point of shipment to market, such point of shipment to be the mine or preparation plant, as the case may be. The lessee agrees that the Secretary of the Interior, for the purpose of determining the royalties due hereunder, may establish reasonable minimum values for the minerals mined, due consideration being given to the highest price paid for a part or a majority of the production of minerals of like quality produced from the same general area, the price received by the lessee, posted prices, and other relevant matters.

(d) Minimum Royalty. If there is no production or if royalties under subsection (c) of this section total less than $ 50.00 in any lease year, to pay the lessor a sum equal to the difference between such royalties and $ 50.00, such minimum royalty obligation to become effective the first lease year commencing after production begins, and to be payable within 30 days following the end of the lease year for which due. Lessor may, in its discretion, suspend the minimum royalty requirement when production is interrupted or suspended as provided in subsection (a).

(e) Bond. To furnish and maintain a bond in the sum of $ 1,000.00 conditioned upon compliance with the terms and conditions of this lease.

(f) Statement. To furnish for each month or such other period as may be designated by the District Mining Supervisor of the Geological Survey, statements in detail, in such form as may be

Rm 3227 General Services Administration Bldg, Washington 25, D. C.

prescribed by him, 1/ of the amount and value of output from the leasehold during such period for use in determining royalties, such statements to be furnished within 30 days from the close of the month or period so designated. Falsification of such statements shall be grounds for cancellation of the lease. 2/

(g) Inspection. To permit at all reasonable times: (1) inspection by any duly authorized officer of the supervising agencies, of the leased premises and all surface and underground improvements, works, machinery, equipment, and all books and records pertaining to operations and surveys or investigations under this lease; and (2) the lessor to make copies of and extracts from any or all books and records pertaining to operations under this lease.

(h) Maps - Reports. To furnish in duplicate to the District Mining Supervisor, at such times as he may require, a plat in the manner and form prescribed by him 1/ showing prospecting and development work and improvements on the lease land and other related information, with a report as to all buildings, structures, and other works or equipment, situated elsewhere and owned or operated in conjunction with, or as a part of the operations conducted hereunder.

(i) Operations. To conduct operations in compliance with all Federal and State laws and the operating regulations of the Department of the Interior (30 CFR, Chap. II, Part 231), which are made a part hereof, and to exercise reasonable diligence, skill and care in the operation of the property, and to carry on all operations in accordance with approved methods and practices, having due regard for the prevention of damage to mineral deposits, water horizons and property, injury to life and health, and economic waste.

(j) Taxes. To pay when due all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, output of mines, and other rights, property and assets of the lessee.

(k) Deliver Premises. To deliver up to the lessor in good order and condition and subject to the provisions of Section 9 hereof on the termination of this lease as a result of forfeiture thereof the lands covered thereby, including all underground timbering and such other supports and structures as are necessary for the preservation of the mine.

(l) Assignment. Not to assign this lease, or any interest therein, whether by direct assignment, operating agreement, working or royalty interest, or otherwise, nor sublet any portion of the leased premises, except with the approval in writing of the lessor. All such assignments or subleases must be submitted in triplicate within 90 days from the date of execution and must contain all of the terms and conditions agreed upon by the parties thereto. No overriding royalties or payments out of production shall be created which would exceed 1/2 the royalties payable under this lease to the lessor. An assignment of all or part of the record title to a portion of the acreage in the lease shall separate the lease into separate leaseholds and the terms hereof shall apply separately to the segregated portions. Advance annual rental payments if previously terminated shall be resumed as to an undeveloped segregated portion on the next anniversary date of the lease, the minimum royalty payment herein specified shall apply separately to the segregated portions and the time allowed within which to commence operations on an undeveloped segregated portion shall be such reasonable period as shall be prescribed by the lessor at the time the assignment is approved.

(m) Non-discrimination. Not to discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and to require an identical provision to be included in all subcontracts.

(n) Payments. To make all payments to the lessor under this section as directed, such payments to be made to the order of the Treasurer of the United States.

SECTION 3. In further consideration of the foregoing, the lessee also agrees:

(a) Protection of Property. To conduct all operations authorized by this lease with due regard for good land management; not to cut or destroy timber without first obtaining permission from the authorized representative of the Secretary of Agriculture, and to pay for all such timber cut or destroyed at rates prescribed by such representative; to avoid unnecessary damage to improvements, timber, crops, or other cover; whenever practicable, to control soil erosion resulting from the operation; to prevent pollution of soil and water resources; unless otherwise authorized by the representative of the Secretary of Agriculture, not to carry on operations, make excavations, construct tunnels, drill, or otherwise disturb the surface of the leased land within 200 feet of any building standing on the leased land; whenever required in writing by the authorized representative of the Secretary of Agriculture, to fence all sump holes and other excavations made by lessee.

(b) Forest, Brush and Grass Fire Precautions. To do all in his power to prevent and suppress forest, brush and grass fires on the leased land and in its vicinity, and to require his employees, contractors, subcontractors, and employees of contractors or subcontractors to do likewise. Unless prevented by circumstances over which he has no control, the lessee shall place his employees, contractors, subcontractors, and employees of contractors and subcontractors employed on the leased land at the disposal of any authorized officer of the Department of Agriculture

1/ All forms herein required are subject to approval by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

2/ 18 U.S.C. sec. 1001 makes it a crime for any person knowingly and wilfully to submit or cause to be submitted to any agency of the United States any false or fraudulent statement as to any matter within its jurisdiction.

for the purpose of fighting forest, brush, or grass fires, with the understanding that payment for such services shall be made at rates to be determined by the authorized representative of the Secretary of Agriculture, which rates shall not be less than the current rates of pay prevailing in the vicinity for services of a similar character; except that if the lessee, his employees, contractors, subcontractors, or employees of contractors or subcontractors caused or could have prevented the origin or spread of said fire or fires, no payment shall be made for services so rendered.

During periods of serious fire danger to forest, brush, or grass, as may be specified by the authorized representative of the Secretary of Agriculture, the lessee shall prohibit smoking and the building of camp and lunch fires by his employees, contractors, subcontractors, and employees of contractors or subcontractors, within the leased area except at established camps, and shall enforce this prohibition by all means within his power. However, the authorized representative of the Secretary of Agriculture may designate safe places where, after all inflammable material has been cleared away, camp fires may be built for the purpose of heating lunches and where, at the option of the lessee, smoking may be permitted.

The lessee shall not burn rubbish, trash, or other inflammable material except with the consent of the authorized representative of the Secretary of Agriculture and shall not use explosives in such manner as to scatter inflammable materials on the surface of the land during the forest, brush or grass fire season, except as authorized to do so or on areas approved by such representative.

The lessee shall build or construct such fire lines or do such clearing on the leased land as the authorized representative of the Secretary of Agriculture decides is necessary for forest, brush, and grass fire prevention and shall maintain such fire tools at his headquarters on the leased land as are deemed necessary by such representative.

(c) Damage to Property. To pay the lessor or its tenant, as the case may be, for any and all damage to or destruction of property caused by the lessee's operations hereunder; to save and hold the lessor or its tenant harmless from all damage or claims for damage to persons or property resulting from the lessee's operations under this lease; and where the surface of the leased land is owned by other than the lessor, to pay such owner, or his tenant, as the case may be, for damage or injury to livestock, crops, trees, pipe lines, buildings, and other improvements on the leased land.

(d) Restoration of Surface of Land. Upon any partial or total relinquishment, cancellation or expiration of this lease, as to that part of the leased land as to which the lessee's rights have terminated and to the extent deemed necessary by the authorized representative of the Secretary of Agriculture, to fill all sump holes, ditches and other excavations, remove or cover all debris, and, so far as reasonably possible, restore the surface of the leased land to its former condition, including the removal of structures as and if required.

(e) Department of Agriculture Regulations. To comply with all the rules and regulations of the Secretary of Agriculture governing the national forests or other lands under his jurisdiction which are embraced in this lease.

(f) Special Stipulations.

X
X
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X

(g) Appropriate Agency Official. To address all matters relating to this section to Forest Supervisor, Pisgah-Croatan National Forest at Asheville, N.C., who is the authorized representative of the Secretary of Agriculture, or to such other representative as may, from time to time, be designated provided that such designation shall be in writing and be delivered to the lessee or his agent as provided by Section 4 hereof.

SECTION 4. Lessee-Agent. Prior to the beginning of operations the lessee shall appoint and maintain at all times during the term of this lease a local agent upon whom may be served written orders or notices respecting matters contained in this lease, and shall inform the authorized representative of the Secretary of Agriculture, and the District Mining Supervisor of the United States Geological Survey, in writing, of the name and address of such agent. If a substitute agent is appointed, the lessee shall immediately so inform the said representatives.

SECTION 5. Renewal of Lease. If, upon the expiration of this lease, the issuance for an onsuing period of a lease of similar character is determined to be in the public interest, and all of the terms hereof have been satisfactorily complied with, and the lessee is then qualified, he shall be accorded a preference in the issuance of said ensuing lease upon such reasonable terms and considerations as may be prescribed by the Secretary of the Interior, unless otherwise provided by law. The exercise of such preference right shall be in accordance with regulations prescribed by the Secretary of the Interior.

SECTION 6. The lessor expressly reserves:

(a) Rights Reserved. The right to permit for joint or several use easements or rights-of-way, including easements in tunnels upon, through, or in the land leased, occupied, or used as may be necessary or appropriate to the working of the same or other lands, and the preparation and shipment of the products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) Monopoly and Fair Prices. Full power and authority to promulgate and enforce all orders necessary to insure the sale of the production of the leased lands to the United States and to the public at reasonable prices, to protect the interest of the United States, to prevent monopoly, and to safeguard the public welfare.

(c) Fissionable materials. All fissionable source materials, together with the right, at any and all times, to enter upon the lands and prospect for, mine and remove such materials, pursuant to Executive Order No. 9908 (12 F. R. 8223).

(d) Waiver of Conditions. The right to waive any breach of the covenants and conditions contained herein, but any such waiver shall extend only to the particular breach so waived and shall not limit the rights of the lessor with respect to any future breach; nor shall the waiver of a particular cause of forfeiture prevent cancellation of this lease for any other cause, or for the same cause occurring at another time.

SECTION 7. It is mutually agreed:

(a) Strip Mining. That this lease does not authorize mining or removal of minerals by stripping or contour mining unless otherwise specifically authorized herein.

(b) Reduction or Smelting of Ores. That the reduction or smelting of ores on the leased land is expressly prohibited in the absence of an agreement between the lessee and the designated representative of the Secretary of Agriculture authorizing such use of the surface of the land and providing for the necessary protection of life and property. Such agreement shall contain all of the terms and conditions under which the reduction or smelting of ores may be carried on and any violation of that agreement shall be considered a violation of the terms of this lease for the purpose of Section 9.

(c) Uses and Disposition of Surface. That the leased land shall be subject at all times to any other lawful uses or sale by the United States, its lessees, permittees, licensees, and assigns; provided that such uses or sale shall not prevent, obstruct, or unduly interfere with any privilege granted under this lease.

(d) Granting Leases for Other Minerals. That the granting of this lease will not preclude the issuance of other leases of the same land for the mining of other minerals with suitable stipulations as to joint operations, in order that full development of the mineral resources may be obtained.

SECTION 8. Relinquishment of Lease. Upon payment of all rentals, royalties and other debts due and payable to the lessor and upon payment of all wages or moneys due and payable to the workmen employed by the lessee, the lessee may, upon a satisfactory showing that the public interest will not be impaired, surrender all or any subdivision or subdivisions of the area included in the lease. In no case will the lease be terminated in whole or in part until and unless the lessee shall have made provision for the preservation of any mines and mineral deposits or productive works or permanent improvements on the lands covered thereby and complied with Section 3(d) hereof. A surrender must be by a relinquishment filed, in triplicate, with the Director, Bureau of Land Management. A relinquishment upon its approval shall take effect as of the date it is filed.

SECTION 9. Removal of Equipment, etc., on Termination of Lease. On termination of this lease, by surrender, forfeiture, or otherwise the lessee shall have the privilege at any time within a period of 90 days thereafter of removing from the premises all machinery, equipment, tools and materials, other than underground timbering placed by the lessee in or on the leased lands, which are not necessary for the preservation of the mine. Any materials, tools, appliances, machinery, structures and equipment, subject to removal as above provided, which are allowed to remain on the leased land shall become the property of the lessor on expiration of the 90-day period or such extension thereof as may be granted by the lessor, but the lessee shall remove any or all of such property when so directed by the lessor.

SECTION 10. Proceedings in case of default. If the lessee does not comply with the applicable regulations made a part hereof or the terms of this lease and such default continues for a period of 30 days after service of written notice thereof by the lessor, the lease may be canceled by the Director, Bureau of Land Management. However, if production has commenced on the

Form 4-1100

lease, it may be canceled only by appropriate proceedings in a court of competent jurisdiction; but this provision does not apply to leases issued for a period of five years or less which may be canceled in the manner stated above. Furthermore, if the lessee fails to take prompt and necessary steps to prevent loss or damage to the mine, property, or premises, or danger to the employees, the lessor may enter on the premises and take such measures as may be deemed necessary to prevent such loss or damage or to correct the dangerous or unsafe condition of the mine or works thereof, which shall be at the expense of the lessee, but the lessee shall not be held responsible for delays or casualties occasioned by causes beyond the lessee's control.

SECTION 11. Heirs and successors-in-interest. It is further agreed that each obligation hereunder shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

SECTION 12. Unlawful Interests. It is also further agreed that no Member of, or Delegate to Congress, or Resident Commissioner, after his election or appointment, or either before or after he has qualified, and during his continuance in office, and that no officer, agent, or employee of the Department of the Interior or of the Department of Agriculture shall be admitted to any share or part of this lease, or derive any benefit that may arise therefrom, and the provisions of Section 3741 of the Revised Statutes, as amended, and 18 U.S.C. 431, 432, and 433, relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

THE UNITED STATES OF AMERICA MAR 25 1952

By [illegible]

[redacted]

Assistant Director, Bureau of Land Management.

WITNESSES TO SIGNATURE OF LESSEE

Laura B. Lawrence

[illegible]

Jed Arrowood

Lessee.

(The reporting requirements contained in this lease have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942. If this lease is executed by a corporation, it must bear the corporate seal.)

Form MF-103
(April 1951)

DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. Dmu 1875X

Date received 7-23-51

Participation

Fred Arrowood
R. F. D. # 1
Waynesville, N. C.

Name and address of applicant

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 23 1951
LANDON F. STROBEL
Executive Secretary

Date

FILL IN THIS BLOCK

Date of application July 19, 1951

Estimated cost

Mineral or metal Strategic Mica

Percentage of Government participation 90 %

Location of mine Haywood County N. C.

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

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

*2. If a partnership, state names and addresses of partners.

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. Building Construction. Three years in mica mining.

*5. Are you the owner or the lessee of the property? Lessee

6. If owner, state what claims, liens, or encumbrances, if any, are against the property.

7. If lessee, attach a copy of the lease and state if it is in good standing. Lease application dated 5/9/51.

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

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

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? $360.00

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

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THE PROPERTY

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

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

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

*11. State the present and former names of the property, if any. Little East Fork Mica Mine

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

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

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

15. State in detail how the ore could be shipped and how and where milled. Truck to Asheville

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations. attached

(*b*) State briefly the known history and production of adjoining and neighboring properties. Big Ridge Mine 8 mile

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations. map attached

*17. Production:

(*a*) If mine is in production, furnish the following information: Idle

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

*18. Ore or mineral reserves: (If property is or has been operating.) Map attached

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

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

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? Strategic Mica

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. attached

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

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

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

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

CERTIFICATION

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

---------- (Name of company)

By ---------- (Signature of authorized official)

---------- (Date)

---------- (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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

5. Property owned by U. S. Forest Service. Lease application filed 5/9/51.

10. Two tram cars, ample steel rail, drill steel and blacksmith tools.

(b) Map prepared by Klepper, Heinrich & Pray dated April 1944.

12. Approximatly 20 miles South of Waynesville N. C., on Southern R. R. 12 miles paved road to Lake Logan, 4 miles gravel road to Scout Camp, then 3 miles by logging trail to mine.

14 Storage buildings for free about two miles from mine.

21 Propose to reconditioned log road, bulldozer 40 hrs. @ $10. $ 400.
Trenching at mine, bulldozer 16 hrs. @ 10. 160.
Drive 60 ft. of Tunnel to intercept vein below caved workings, 100 ft. of tunnel @ $29.48 2948.

TOTAL 3508.

22. Mine operated during World War # 2 producing several thousand dollars worth of strategic mica. Old workings inaccessable at present.

23. Labor

(a)	one blacksmith & blaster	$1.50/hr.	40 days	$480
(	one driller	1.25/hr	40 days	400
	two muckers	1.00/hr	40 days	640
(b)	Foreman	2.00/hr	40 days	640

(c), (e), (d) none

(f) One compressor and Jackhammer $100/mo., two months $200.

(g) Equipment listed in # 10 valued at 250.

(h) Explosives, incidentals 250

(i) 200 ft. one inch pipe 88.

44

9. Property owned by U. S. Forest Service. Lease application filed 3/9/31.

10. Two [illegible] cars, sample steel rail, drill steel and blacksmith tools.

(b) Map prepared by Klepper, Hefferlon & Fry dated April 1944.

12. Approximately 20 miles South of Weyrauville N. C., on Southern R. R. 12 miles paved road to Lake Logan, 4 miles gravel road to Scout Camp, then 3 miles by logging trail to mine.

14 Storage buildings for ties about two miles from mine.

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100 ft. of tunnel @ $29.48 2948.

TOTAL 3508.

22. Mine operated during World War # 2 producing several thousand dollars worth of strategic mica. Old workings inaccessible at present.

23. Labor

(a) one blacksmith & blaster	$1.50/hr.	40 days	480
(one driller	1.25/hr	40 days	400
two muckers	1.00/hr	40 days	640
(b) Foreman	2.00/hr	3 days	640

(c), (e), (d) none

(f) One compressor and jackhammer $150/mo., two months 3200.

(g) Equipment listed in # 10 valued at 250.

(h) Explosives, incidentals 250

(i) 200 ft. one inch pipe

LITTLE EAST FORK MICA MINE
HAYWOOD COUNTY, N.C.

E.Wm Heinrich
April 21, 1944

Location and Access

The Little East Fork mica mine (also known as the Arrowood mine) is 12 airline miles S. 32° E. of Waynesville, Haywood County, North Carolina. It is near the headwaters and on the west side of Little East Fork Creek, a north-flowing tributary of the Pigeon River. Directions for reaching the mine from Waynesville are:

1.	By U. S. Highway 276 from Waynesville to Bethel	6.1 miles
2.	From Bethel to turnoff south of Lavina by Pigeon River Road	4.7 "
3.	Lavina turnoff to Daniel Boone Scout Camp	3.7 "
4.	Scout camp to end of logging road, for high center trucks only	ca 1.5
5.	End of logging road to mine on foot via old sled road	.5
	Total	16.5 miles

Ownership and History

The land is part of the Pisgah National Forest and has been under lease to Fred Arrowood of Hazelwood, North Carolina, during 1942, 1943, and 1944. The first prospect pits are reported to have been dug about 25 years ago, but the present period of operation began in July 1942. Work was continued until the spring of 1943. From that time until the late fall of the same year only enough work was done every three months to maintain the lease. In November 1943 a compressor was rented from Colonial Mica Corporation. Five weeks were required to drag the compressor from the end of the logging road to a point about 400 feet vertically below the mine; the task was completed on December 20, 1943. Work has continued intermittently to date.

Geology

The country rock is a fine-grained biotite gneiss with a highly contorted foliation. In general this foliation is too crumpled to permit measurement of its attitude, but several small, well-defined folds were observed.

At least three pegmatites are exposed on the property. They strike northeast-southwest and, in general, dip to the northwest. The northernmost pegmatite is exposed in Adit X (see map) and in the cut that leads into the adit. The maximum exposed thickness of this pegmatite is 20 feet, but the southeastern contact is not exposed. A septum of gneiss, exposed

on both walls of the cut, narrow and plunges to the southwest and disappears into the floor of the adit. The pegmatite in the upper part of the cut is transected by a vein of massive white quartz, one foot thick. The pegmatite consists of a coarse-grained intergrowth of decomposed feldspar, biotite, quartz, and muscovite. In much of the rock books of biotite are aligned to produce a directive texture. Books of muscovite are locally abundant; quartz is less abundant than feldspar. Because of its decomposition on the feldspar could not be accurately identified, but it is believed to be largely microcline.

The main pegmatite is exposed in the large open cut and in the two short adits that lead from the cut, Adits Y and Z (see map). The intrusive has a maximum exposed width of 25 feet. It carries a central septum of gneiss that widens to the south and appears to plunge in the same direction. The western contact of this septum with the pegmatite dips 60° W.

The hanging wall contact of the pegmatite is well exposed along the western wall of Adit Y. It strikes N. 10° E. and dips 45° NW. A muscovite zone, up to two feet thick, lies against the contact. The footwall contact of the pegmatite is exposed near the mouth of the open cut. It strikes south and dips 78° W. No mica zone is present along this contact. The second mica zone is less well defined and is along the eastern margin of the gneiss septum. Adit Z follows this zone. The central part of the pegmatite is rich in feldspar, chiefly microcline, with lesser quantities of quartz and scattered books of muscovite and biotite.

The pits at the southern end of the mapped area were dug in a small pegmatite that may be the extension of the main dike.

The third pegmatite is exposed on the steep hillside east of the main workings. The dike is very irregular in shape and structure. A central body of massive quartz is flanked by zones of feldspar- quartz pegmatite that contains irregular attenuated wisps of granitized gneiss. The feldspar appears to be chiefly plagioclase. The northern border zone contains a thin streak of pegmatite rich in muscovite. Some biotite and a little pyrrhotite are present. East of this pegmatite are several small, poorly exposed pods of quartz - feldspar pegmatite.

Mica

Northern pegmatite: No well defined zone appears in this pegmatite but a concentration of mica is on the northern wall of the adit near the heading. The mica is in books up to three inches in width, is rum in color, and is highly broken and reeved. Only a very small percentage would be of strategic quality.

Main pegmatite: Two concentrations of mica are present in this dike. The better zone appears to be the one along the hanging wall of the pegmatite. It contains mica books up to eight inches wide. The mica is dark rum to ruby in color and occurs chiefly in small hard books. Cracks and "A" structure arecommon. Crumpling is present but is rare. Intergrowths with biotite are not uncommon. The zone is two feet thick and well defined. The concentration along the eastern contact of the septum

of gneiss is less well defined and contains less mica. The mica appears to be of somewhat poorer quality.

Western Pegmatite: The mica-rich seam in the northern border zone of this dike is three to four inches wide. The mica is green, 100% broken and reeved, and of scrap quality only.

The largest trimmed sheet seen in the rifting shop measured 3 by 4 inches. Nearly all of the sheets over 1 by 1.5 inches are slightly curved. It is estimated that less than 20% of the trimmed sheets measured over 1 by 1.5 inches.

[redacted]

The chief difficulty of the operation lies in the inaccessibility of the mine. The miners leave Waynesbille at 7 a.m. and arrive at the mine about 9:45 a.m. and work until 5 p.m. to give a working day of about 7 hours. Furthermore the logging road can be traveled by truck only in dry weather, and the miners will not work on rainy days. As a result very few actual working days are obtained, sometimes only one per week. The production of an "average day" will in reality represent the production of a week or of 3 to 4 days. The average monthly production to date is 17 lbs. In March 1944, 57 lbs. were sold, and the estimated potential production of the mine per month for the next three months may be as high as 75 lbs.

Of the three pegmatites exposed on the property only the main or central pegmatite appears to contain sufficient mica of good quality to permit its commercial exploitation.

Copied by
zm/11/5/51

Standard Form No. 1044—Revised
Form approved by Comptroller General U. S.
June 25, 1936

SCHEDULE OF COLLECTIONS

Schedule No. _____

Sheet No. 1-A1

Defense Minerals Exploration Administration (Department or Establishment) — 14-23-070 (Bureau or Office)

Received by E. A. Hudson, Regional Disbursing Officer (Name, Title) at Oak Ridge, Tenn. (Station)

Period April 1954 (Month or quarter ended) — D. O. Symbol No. 1420

Date Received	Receipt Number	Name of Remitter	Detail Description of Purpose for Which Collections Were Received	Amount	Fund to be Credited (Symbol and title in full)
Check No. 3100 dated 4/16/54		Fred Arrowood (Cashier's check from First State Bank, Haselwood, N. C. signed by Peggy Ann Plemmons)	Repayment of overpayment on contract Idm-E-314, DMEA 1875X	95.85	14X4401 Revolving Fund, Defense Production Act, Interior.
			Total,	95.85	

Received _____, subject to collection. Forwarded April 20, 1954

(Disbursing clerk or accountable officer)

By _____

By _____ (Name) Lillian D. Blair

Title Authorized Certifying Officer

Certificate of Deposit No. _____ dated _____

☆ U. S. GOVERNMENT PRINTING OFFICE 10—1790

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

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 9 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March, 1953 Docket No. DMEA 1875 X Contract No. E 314
Operator's Name Fred Arrowood Minerals Mica
Address Route 1, Waynesville, N. C.
Contract Amount, $6400.00 Government Participation: 90 % Amount, $5760.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting						
Drifting 25 ft	$525.00	2205.00	2730.00	525.00	2205.00	2730.00
Road		1730.00	1730.00		1730.00	1730.00
(2) Labor and Supervision:						
Labor		308.00	308.00		308.00	308.00
Supervision		477.50	477.50		477.50	477.50
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives		138.00	138.00		138.00	138.00
Pipe		47.38	47.38		47.38	47.38
~~Track~~ Spades		7.73	7.73		7.73	7.73
Gas		17.05	17.05		17.05	17.05
(4) Operating Equipment:						
Rental		705.00	705.00		705.00	705.00
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	525.00	5635.66	6160.66	525.00	5635.66	6160.66

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

Date 3-21-53 *Payee Fred Arrowood

Per _____ Title operator

*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:

$ 472.50

Signature Cora A. Pipes
(Authorized Certifying Officer)

Date APR 6 1953 Vou. No. 137
(See other side)

52-50

(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. DMI-E314 in accordance with the terms of the contract.

Signature Lawrence E. Shirley Title Mining Engr. U.S.B.M. Date 3-25-53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION VII Date MAR 30 1953

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 MF-104A
(April 1952)

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
APR 9 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March 1953 Docket No. DMEA 1875 X Contract No. E 314
Operator's Name Fred Arrowood Minerals Mica
Address Route 1, Waynesville, N.C.

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting	foot	$525.00	25 ft.	$2730.00	130.	21.00	130 ft	21.00 p ft.
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		$525.00	25 ft	2730.00				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 3-21-53 Operator Fred. Arrowood

Per Title Operator.

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.

Remarks: No report for February as no work was done due to weather.

(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

OPERATOR'S MONTHLY PROGRESS REPORT

FOR THE MONTH OF MARCH, 1953.

DMEA No. 1875 X

Idm - E 314

Work Accomplished:

During February, very little work done due to weather. In March, however, work progressed satisfactorily to the extent that 25 feet of drift was driven which completes the 130 feet provided for in the contract.

Throughout the entire 130 feet the pegmatite has looked good; approximately 2700 lb of mica has been gotten out, small in size, ungraded as to quality yet; have done preliminary work on our own within a radius of 200 feet and still find outcroppings that look good, six in number, and anticipate doing more prospecting because we feel sure that there is a good body of mica within this small area.

All the money expended in this operation has been handled in the most conservative way. All the engineering and guidance given has been very satisfactory.

Fred Arrowood
Operator

RECEIVED
MAR 30 1953
U.S. BUREAU OF MINES
DEP. MIN. ADM.
Knoxville, Tennessee

RECEIVED
MAR 30 1953
U. S. BUREAU OF MINES
DEF. MIN. ADM.
Knoxville, Tennessee

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

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

111

PAID ON VOUCHER AND SCHEDULE OF PAYMENTS NOR - 45

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January, 1953 Docket No. DMEA 1875 X Contract No. E 314

Operator's Name Fred Arrowood

Minerals Mica

Address Route 1, Waynesville, N. C.

Contract Amount, $6400.00 Government Participation: 90 % Amount, $ 5760.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting						
Drifting 12 ft	252.00	1953.00	2205.00	252.00	1953.00	2205.00
Road const.		1730.00	1730.00		1730.00	1730.00
(2) Labor and Supervision:						
Labor		308.00	308.00		308.00	308.00
Supervision		477.50	477.50		477.50	477.50
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives		138.00	138.00		138.00	138.00
Pipe		47.38	47.38		47.38	47.38
Track		7.73	7.73		7.73	7.73
		17.05	17.05		17.05	17.05
(4) Operating Equipment:						
Rental						
Purchase		705.00	705.00			
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	252.00	5383.66	5635.66			

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

Date 2-7-53 *Payee Fred Arrowood

Per _____ Title Operator

*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:

$ 2268 80

Signature Cora A. Piper
(Authorized Certifying Officer)

Date FEB 24 1953 Vou. No. 111

(See other side)

8

(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. Tdm-E314 in accordance with the terms of the contract.

Signature Lawrence E. Shirley Title Mining Engr. U.S.B.M. Date Feb 17, 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION VII Date FEB 19 1953

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 MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 1953 Docket No. DMEA 1875 X Contract No. E 314
Operator's Name Fred Arrowood Minerals Mica
Address Route 1, Waynesville, N. C.

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting	foot	$252.00	12 ft	2205.00	105	21.00	130ft	21.00 pr ft.
Crosscutting	foot							
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		252.00	12 ft	2205.00				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 2-7-53 Operator Fred Arrowood

Per _____ Title Operator.

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.

Remarks:

(Instructions on reverse)

(For Government use only)

Road construction 1730.00
Clearing pits 200
1930.00

Total spent $5635.66
Less 1930.00
105' drift — $3705.66
drift/ft — $35.29

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

OPERATOR'S MONTHLY PROGRESS REPORT
FOR THE MONTH OF JANUARY, 1953.

DMEA NO. 1875 X
Idm- E 314

Work Accomplished:

Commenced work the first of January; subsequently adverse weather conditions shut operations down for awhile; commenced work again and a breakdown occured with a further lost of time due to delay in obtaining replacement parts; total footage driven in drift this month was twelve feet. Weather conditions, influenza among workers, prevented more rapid progress. Weather conditions generally during month were bad. Equipment is again in good shape to carry forward with work.

This the 7th day of ~~January~~ February, 1953

Fred Arrowood

Fred Arrowood, Operator.

RECEIVED
FEB 19 1953
U. S. BUREAU OF MINES
DEF. MIN. ADM.
Knoxville, Tennessee

Form [redacted]104 (Rev.)
(April 1952)

7

UNITED STATES
[redacted]EPARTMENT OF THE INTERIOR[redacted]
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
JAN 8 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of DECEMBER, 1952 Docket No. DMEA 1875-X Contract No. E 314
Operator's Name FRED ARROWOOD Minerals MICA
Address ROUTE 1, WAYNESVILLE, N.C.
Contract Amount, $ 6400.00 Government Participation: 90 % Amount, $ 5760.00

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~~ ~~Crosscutting~~	$210.00	1743.00	1953.00	210.00	1743.00	1953.00
Crosscutting ~~10 ft.~~						
Drifting						
Road		1730.00	1730.00		1730.00	1730.00
(2) Labor and Supervision:		308.00				
Labor			308.00		308.00	308.00
Supervision		477.50	477.50		477.50	477.50
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives		138.00	138.00		138.00	138.00
Pipe		47.38	47.38		47.38	47.38
Track		7.73	7.73		7.73	7.73
Spades		17.05	17.05		17.05	17.05
Gas						
(4) Operating Equipment:						
Rental		705.00	705.00		705.00	705.00
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	210.00	5173.66	5383.66	210.00	5173.66	5383.66

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

Date 1-3-53 *Payee Fred. Arrowood

Per _____ Title Operator

*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:

$ 189.00

Signature _____
(Authorized Certifying Officer)

Date 1/6 Vou. No. _____
(See other side)

21.00

(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. Ha E314 in accordance with the terms of the contract.

Signature Lawrence E. Shirley Title Mining Engr. U.S.B.M. Date Jan. 5, 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title Executive Officer Date Jan 5, 1953

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

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 3 1953

Month of December 1952 Docket No. DMEA 1875 X Contract No. E 314
Operator's Name FRED ARROWOOD Minerals MICA
Address ROUTE 1, WAYNESVILLE, N. C.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting	feet	$210.00	10 ft	1953.00	93	21.00	130 ft	21.00 pr ft.
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		210.00	10 ft	1953.00				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 1-3-53 Operator Fred Arrowood

Per _____ Title Operator

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.

GPO 83-38475

OPERATOR'S MONTHLY PROGRESS REPORT
FOR THE MONTH OF DECEMBER, 1952.

DMEA NO. 1875 X
Idm- E 314

Work Accomplished:

Between break down on compressor, necessitating close down until parts could be received and replaced from factory, Christmas holidays, and some adverse weather conditions, we did not get very much drilling done during December. Ten feet was all we got done. Equipment is now in good shape to go ahead with work, barring adverse weather conditions, during January 1953.

This the 3rd day of January, 1953.

Fred Arrowood

Fred Arrowood, operator.

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

UNITED STATES
PARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
RECEIVED
DEC 22 1952

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 1952 Docket No. DMEA 1875 X Contract No. X 314
Operator's Name Fred Arrowood Minerals Mica
Address Route 1, Waynesville, N. C.
Contract Amount, $ 6400.00 Government Participation: 90 % Amount, $ 5760.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting 15 ft	315.00	1428.00	1743.00	315.00	1428.00	1743.00
Drifting						
Road		1730.00	1730.00		1730.00	1730.00
(2) Labor and Supervision:						
Labor		308.00	308.00		308.00	308.00
Supervision		477.50	477.50		477.50	477.50
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives		138.00	138.00		138.00	138.00
Pipe		47.38	47.38		47.38	47.38
TXXX Spades		7.73	7.73		7.73	7.73
Gas		17.05	17.05		17.05	17.05
(4) Operating Equipment:						
Rental		705.00	705.00		705.00	705.00
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	315.00	4858.66	5173.66	315.00	4858.66	5173.66

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

Date 9 Dec. 1952 *Payee Fred Arrowood

Per _____ Title Operator.

*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:

$ 283.50

Signature _____
(Authorized Certifying Officer)

Date _____ 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. Idn-E314 in accordance with the terms of the contract.

Signature Lawrence E. Shirley Title Mining Engr U.S.B.M. Date Dec. 10, 1952

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title Exec. Officer Date 12-16-52

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.

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U. S. GOVERNMENT PRINTING OFFICE 205675

Form MF-104A
(April 1952)

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 22 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Nov. 195 2 Docket No. DMEA 1875X Contract No. E 314
Operator's Name Fred Arrowood Minerals Mica
Address Route 1, Waynesville, N. C.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting	foot	315.00	15 ft	1743.00	83	21.00	130ft	21.00pr ft.
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		315.00	15 ft	1743.00				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 9th Dec. 1952 Operator Fred Arrowood

Per _____ Title Operator

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.

GPO 83-38475

OPERATOR'S MONTHLY PROGRESS REPORT
FOR THE MONTH OF NOVEMBER, 1952.

DNEA NO. 1875X
Idm- E 314

Work Accomplished:

Due to instructions from U. S. Forestry Service, operations were suspended until the passing of the forest fire hazard and area was re-opened by Forestry Service.

Went in to mine on 14th Nov. and repaired drill column. On Monday, 17th, Nov., broke wheel on transportation car and did not get to mine. Drilled Wednesday, Thursday, Friday, Nov. 19, 20th, 21st; Friday 21st broke starter spring on compressor, spent friday and saturday getting repair parts and getting compressor back into operation. Worked at drilling 24th, 25th, and 27th and 28th Nov., lost Wednesday 26th. Worked Saturday 29th, 4 hours; lost the 26th due to rain and did not go to mine. Total of 15 feet drilled, in crosscutting.

Last drilling revealed pegmatite to be getting better, but to be pitching downward.

This the 9th day of December, 1952.

Fred. Cerrawood
Operator.

MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires April 30, 1953.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 1 3 1952
Idm

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 1952 Docket No. DMEA 1875X Contract No. -E 314
Operator's Name Fred Arrowood Minerals Mica
Address Route 1, Waynesville, N. C.
Contract Amount, $6400.00 Government Participation: 90 % Amount, $5760.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting 11 feet	231.00	1197.00	1428.00	231.00	1197.00	1428.00
Drifting						
Road		1730.00	1730.00		1730.00	1730.00
(2) Labor and Supervision:						
Labor		308.00	308.00		308.00	308.00
Supervision		477.50	477.50		477.50	477.50
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives		138.00	138.00		138.00	138.00
Pipe		47.38	47.38		47.38	47.38
~~XXXX~~ spades		7.73	7.73		7.73	7.73
gas		17.05	17.05		17.05	17.05
(4) Operating Equipment:						
Rental		705.00	705.00		705.00	705.00
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	231.00	4627.66	4858.66	231.00	4627.66	4858.66

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 11/6/52 *Payee Fred Arrowood
Per _____ Title Lessee-Operator

*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:

$ 207.90

Signature _____
(Authorized Certifying Officer)

Date _____ 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. Idm-E 314 in accordance with the terms of the contract.

Signature Laurence E. Shirley Title Mining Engr. U.S.BM Date Nov. 7, 1952

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lemmene Title Executive Officer Date NOV 10 1952

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

Form MF-104A
(April 1952)

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 13 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of ~~September~~ Oct 1952 Docket No. DMEA 1875 X Contract No. Idm. E 314
Operator's Name Fred Arrowood Minerals Mica
Address Route 1, Waynesville, N. C.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting	foot	231.00	11 ft	1428.00	68	$21.00	130ft	21.00 per ft.
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		231.00	11 ft	1428.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		231.00		1428.00				

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 11/6/52 Operator Fred Arrowood

Per Title ~~Lessee~~ operator

REMARKS: The first part of month up to 16th of Oct. taken up in returning rental equipment, buying delivery and setting up equipment to replace rental equipment. Started drilling on 16th, worked 17th, 20th, 22, 23, 24, & 27th thru 31p; then closed down and am now closed down due to orders of Forestry Service for prevention of forest fire. No one allowed in Forest Area until fire hazard is past or until rain.

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

OPERATOR'S MONTHLY PROGRESS REPORT
For the Month of October, 1952

DMEA No. 1875X
Idm- E 514

Work Accomplished:

First part of the month up to the 16th of October was used in buying at different places the necessary equipment and delivering the same to the mine, setting up, repairing, and replacing the rental equipment previously rented. Had to replace rented Jack Hammer, Compressor, and drill column, with other equipment of same kind which was purchased.

Started drilling on the 16th of October, worked on 17th, 20th 22, 23, 24th, and 27th thru 31st October; drilled 11feet or more; ~~in~~ drilling is in pegmatite which is running just about the same as at last inspection; mica books small and [redacted]

At end of 31st October, operator shut down complete for temporary time, due to orders issued by U. S. Forestry Service. Operations upon government land can not recommence until there is rain or forest fire hazard has passed.

Fred Alexander

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.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September, 1952 Docket No. DMEA 1675X Contract No. E 314
Operator's Name Fred Arrowood Minerals Mica
Address Rt. 1, Waynesville, N. C.
Contract Amount, $6400.00 Government Participation: 90 % Amount, $5760.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting 19ft	399.00	798.00	1197.00	399.00	798.00	1197.00
Drifting						
Road		1730.00	1730.00		1730.00	1730.00
(2) Labor and Supervision:						
Labor		308.00	308.00		308.00	308.00
Supervision		477.50	477.50		477.50	477.50
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives		138.00	138.00		138.00	138.00
Pipe		47.38	47.38		47.38	47.38
Tools Spades		7.73	7.73		7.73	7.73
gas		17.05	17.05		17.05	17.05
(4) Operating Equipment:						
Rental		705.00	705.00		705.00	705.00
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	399.00	4328.66	4627.66	399.00	4228.66	4627.66

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

Date 10/3/52 *Payee Fred Arrowood

Per _____ Title Operator

*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:

$359.10

Signature _____
(Authorized Certifying Officer)

Date _____ 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. E-314 in accordance with the terms of the contract.

Signature Kelton H. Teague Title Geologist, U.S.G.S. Date 10/6/52

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lemmenne Title Executive Officer Date 10-6-52

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

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Sept. 195 2 Docket No. DMEA 1875X Contract No. E314
Operator's Name Fred Arrowood Minerals Mica
Address Rt. 1. Waynesville, N. C.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting	foot	399.00	19 ft.	1197.00	57 ft	$21. per ft.		
Raising							130ft.	$2730.00
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		399.00	19 ft	1197.00			TOTAL COSTS AUTHORIZED BY CONTRACT	
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
TOTAL COSTS		399.99		1197.00				

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 10/3/52 Operator Fred Arrowood

Per Title Owner-Operator

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

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August, 1952 Docket No. DMEA 1875X Contract No. E-314
Operator's Name Fred Arrowood Minerals mica
Address Route 1, Waynesville, N. C.
Contract Amount, $ 6400.00 Government Participation: 90 % Amount, $ 5760.00

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						
Crosscutting 38ft @ $21.00 ft.				798.00		798.00
Drifting						
Road		1730.00	1730.00		1730.00	1730.00
(2) Labor and Supervision:						
Labor		308.00	308.00		308.00	308.00
Supervision		477.50	477.50		477.50	477.50
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives		138.00	138.00		138.00	138.00
Pipe		47.38	47.38		47.38	47.38
Track		7.73	7.73		7.73	7.73
Spades		17.05	17.05		17.05	17.05
Gas		----	798.00			
Tunnel, 38ft. @ $21 per ft.	798.00					
(4) Operating Equipment:						
Rental Comp. & Hammer	235.00	235.00	470.00	235.00	470.00	705.00
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	1033.00	2960.66	3993.66	1033.00	3195.00	4228.66

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

Date 9/18/52 *Payee Fred. Arrowood

Per _____ Title Operator.

*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:

$ 929.70

Signature _____
(Authorized Certifying Officer)

Date _____ 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. E-314 in accordance with the terms of the contract.

Signature Laurence E. Shirley Title Mining Engr. Date 9-18-52

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title Executive Officer Region VII Date 9-22-52

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

Form ME-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 195[illegible] Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address Route 1, [illegible]

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Tunneling	Foot	$700.00	35 feet	$700.00	35 ft.	$21.00	1000 ft.	$21.00 per ft
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.				$470.00				
Operating equip rental		$135.00	-	[illegible]				
TOTAL COSTS		$1035.00		[illegible]				

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 9/10/52 Operator Fred Arnwood

Per _____ Title Operator

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

LITTLE EAST FORK MINE

HAYWOOD COUNTY, N. C.

PROGRESS REPORT

AUGUST, 1952

Driving of a new tunnel commenced during month of August and 38 feet of tunnel driven.

Fred Arrowood

Fred Arrowood, Operator

STATEMENT

TO: Fred Arrowood
Waynesville, N. C.

DUE FOR:

30 August, 1952, For Rental on Compressor and

Jack Hammer, for month of August, 1952, - $235.00

Hayes Bryson

Hayes Bryson

CERTIFIED TRUE COPY:

Fred Arrowood

Fred Arrowood

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.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1952 Docket No. DMEA [redacted] Contract No. [redacted]
Operator's Name Fred Arrowood Minerals Mica
Address Waynesville, N. C.
Contract Amount, $[redacted] Government Participation: [redacted] % Amount, $

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting						
Drifting						
Road		1730.00	1730.00		1730.00	1730.00
(2) Labor and Supervision:		198.00				
Labor	110.00	[redacted]	308.00	110.00	198.00	308.00
Supervision	90.00	387.50	477.50	90.00	387.50	477.50
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives		138.00	138.00		138.00	138.00
Pipe		47.38	47.38		47.38	47.38
Track						
Spades		7.73	7.73		7.73	7.73
Gas		17.05	17.05		17.05	17.05
(4) Operating Equipment:						
Rental Comp. & Hammer	235.00	235.00	470.00	235.00	235.00	470.00
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	435.00	2360.66	3195.66	435.00	2360.66	3195.66

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

Date [redacted] *Payee Fred Arrowood

Per Title Operator

*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 wilfully 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:

$ 391.50

Signature
(Authorized Certifying Officer)

Date Vou. No.
(See other side)

AUG 25 1952

(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. Idm E314 in accordance with the terms of the contract.

Signature Kelton H. Teague Title Geologist U.S.G.S. Date 8-19-52

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. A. Beck Title Acting Exec. Officer Date 8-19-52

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

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 195 8 Docket No. DMEA 1875 X Contract No. R 314
Operator's Name Fred Arrowood Minerals Mica
Address Waynesville, N. C.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Cleaning out old pit	-	$200.00	-	$200.00	-	-	1	$200.00
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Operating Equip. Rental		235.00		470.00				470.00
TOTAL COSTS		435.00		$70.00				$70.00

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 _____ Operator Fred Arrowood

Per _____ Title _____

REMARKS: Cleaning old pit had to be done by hand because of inaccessability to bulldozer.

→ 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

LITTLE EAST FORK MINE

HAYWOOD COUNTY, N. C.

PROGRESS REPORT

JULY, 1958

Completed cleaning out old pits which had to be done by hand because we could not get a bulldozer to the pit.

Forty feet of rock cut excavated. So far, cut is in wall rock.

Fred Arrowood

Fred Arrowood

STATEMENT

TO: Fred Arrowood,
Waynesville, N. C.

DUE FOR:

1 August, 1952, For Rental on Compressor and
Jack Hammer, for month of July, 1952 - - - - $235.00

Hayes Bryson

CERTIFIED TRUE COPY:

Fred Arrowood

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May- June, 1952 Docket No. DMEA 127EX Contract No. 2514
Operator's Name Fred Arrowood, Minerals Mica
Address Route 1, Waynesville, N. C.
Contract Amount, $ 6400.00 Government Participation: 80 % Amount, $

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 Improving old road -	916.28		916.28	916.28		916.28
Crosscutting						
Drifting						
Bulldozing new road -	813.72		813.72	813.72		813.72
(2) Labor and Supervision:						
Labor	198.00		198.00	198.00		198.00
Supervision	387.50		387.50	387.50		387.50
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives	138.00		138.00	138.00		138.00
Pipe	47.38		47.38	47.38		47.38
Track						
2 spades	7.73		7.73	7.73		7.73
50 Gal. Gas.	17.05		17.05	17.05		17.05
(4) Operating Equipment:						
Rental Air Comp. & Jack Hammer	235.00		235.00	235.00		235.00
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	2760.66		2760.66	2760.66		2760.66

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

Date 7/7/52 *Payee Fred Arrowood

Per Title Operator

*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 wilfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 28 1952

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

$ 2484.59

Signature
(Authorized Certifying Officer)

Date 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. E314 in accordance with the terms of the contract.

Signature W. A. Beck Title Mining Engr. U.S.BM. Date 7/24/52

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title Executive Officer Date 7/24/52

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

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May- June 195 2 Docket No. DMEA 1875X Contract No. E314

Operator's Name Fred Arrowood, Minerals mica

Address Route 1, Waynesville, N. C.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
				(Division of Other costs between				)
Drifting				(improving old road and constructing new				)
Crosscutting				(road:				)
Raising				(.75 mi. : 2.75mi. as $255.04				: $924.16)
Shafts								
Winzes								
Drilling: Core								
Churn								
Bulldozer-improving						(916.28		)
~~xxxxxx~~ old road -		916.28	2 mi.	916.28	2 mi.	(669.12	2 mi.	)
Stripping Bulldozer-								
~~xxxxx~~ new road -		813.72	3/4mi.	813.72	¾ mi.	(813.72	¾ mi.	)- $3000.00
Trenching						(255.04		)
Test Pits Other Costs*		924.16		924.16				
Roads and Trails								
Cleaning up old pits		106.50		106.50		106.50		200.00
and portals								
TOTAL DISTRIBUTED COSTS		$2760.66		$2760.66				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$2760.66		$2760.66				$3400.00

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 7/7/52 Operator Fred Arrowood

Per Title Operator

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.

REMARKS: *Other Costs: Road work.

Labor - - - - - - - - - -	$162.50
Supervision - - - - -	316.50
Explosives - - - - - -	138.00
pipe - - - - - - - - - -	47.38
two spades - - - - -	7.73
gas - - - - - - - - - - -	17.05
Air Comp. rental - - -	235.00
Total - - -	924.16

(Instructions on reverse)

(For Government use only)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 28 1952

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

Narrative in Compliance with 4th Paragraph of Instructions Pertaining to Form MF-104

Operator's Name: Fred Arrowood

Address : Route 1, Waynesville, N. C.

Ref: DMA - 1875X (Mica).

This mica exploration project was started on May 22nd, 1952, the road work upon the same being started on that date. Road work consisted of improving old road and construction of approximately ~~one~~ Three quarter mile of new road. Road work was finished on the 20th day of June, 1952. All expenses in the form of explosives and gasoline cost were used upon road work and is property allocated to road work.

Commencing the 23rd day of June, 1952, operator started work at mine, cleaning off and cleaning out old pits and portal. Work of the latter nature continued through the end of June.

STATEMENT:

TO: Fred Arrowood, Rt. 1, Waynesville, N. C.

7/7/52

Herewith statement of time worked for Fred Arrowood of Waynesville, N. C., construction of road to mica mine on Little East Fork of Pigeon River with Bulldozer and operator. Rate $10.00 per hour.

Total hours, 175, - - - - - - - - - - - - -$1750.00

Signed: Hayes Bryson

Rental on air Compressor - - - - -$175.00 per month.
Rental on Jakk Hammer - - - 80.00 per month.
From May 28 til June 28, 1952 -Total $255.00

Signed: Hayes Bryson

CERTIFIED A TRUE COPY:

Fred Arrowood
Fred Arrowood, Operator.

PAYROLL OF FRED ARROWOOD,
Route 1, Weaverville, N. C.

Contract No1 E314
Mineral: Mica.
Docket No.: DMEA 1075X

For the months of May and June 1952.

Employee's Name	Class of work	Rate per hour	Hours Worked	AMOUNT Paid
Stokes Bumgarner	Laborer	$1.00	198	$198.00
Hayne Bryson	Bulldozer operator	$10.00	173	$1730.00
		Sub Total - - - -		$1928.00
Fred Arrowood	Supervision of operator	$2.00	193½	$387.00*

*(Appears ~~xxxxxxx~~ under Item (2) MF 104)

CERTIFIED CORRECT TRANSCRIPT OF PAYROLL RECORD SUMMARY:

Fred Arrowood

Fred Arrowood, Operator.

DMA-1875X, Idm-E314 (mica)

Fred Arrowood, Operator.

Contract provides for improvement and construction of roads under independent contract at a maximum allowable cost of $3000.00. Operator was unable to make a suitable independent contract and proposed to do the work under his own direction, with a bulldozer rented at standard rates (including operator, fuel, repairs, etc.). Some drilling and blasting was also required. Permission to do this was granted by the field engineers representing the Field Team. Cost of this work as reported on the voucher was $2,654.16, well below the allowable maximum.

The project is being carried out efficiently, toward the objectives of the contract. Payment of these items is recommended.

Robert A. Laurence

Robert A. Laurence
Executive Officer, DMEA
Field Team.

FILE COPY
SURNAME:

Anderson
Hack
Chamber

UNITED STATES
DEPARTMENT OF THE INTERIOR

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

August 26, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Closing review of Docket No. DMEA-1875 - Mica
Contract No. Idm-E314
Date of Contract - May 13, 1952
Property: Little East Fork Mica Mine
16.5 miles S. 32° E. of Waynesville,
Haywood County, North Carolina.
Operator: Fred Arrowood
R.F.D. #1, Waynesville, North Carolina

Contract amount approved	$6,400.00
Total accepted cost	6,054.00
Government's share @ 90%	5,448.74

Project Work: Started on May 22, 1952
Completed on March 21, 1953

Closing letter: Copy of closing letter is attached. There is no certification of discovery or development.

Docket Summary:

7/23/51	Received application, MF-103.
7/27/51	Application acknowledged.
10/1/51	Referred application to Region VII for field examination.
11/7/51	Received report of examination. Authors - K. H. Teague and A. L. Peyton. An exploration contract costing $6,444.00 was recommended.
11/30/51	Received memorandum from W. F. Dietrich, USBM. Stated, proposed work seems justifiable.
1/31/52	Received memorandum from D. H. Kupfer, USGS, suggested follow field team's recommendations.
2/5/52	Second letter to Region VII requesting a copy of lease from the U. S. Forest Service.
3/31/52	Received copy of lease.
5/13/52	Transmitted original and five copies of a contract to Region VII for approval and signature by the Operator.
5/22/52	Received signed copies of contract, dated 5/20/52.
8/8/52	Received Amendment No. 1, providing for cleaning out old pits by hand at a cost not to exceed $200.00.

R.C.S.
8-31-53

10/28/52 Received Amendment No. 2, providing for completion of project within 7 months from date of contract, instead of 1/2 months as provided in original contract.

1/7/53 Received Amendment No. 3, providing for completion of project within 10 months from date of contract instead of 7 months as provided by Amendment No. 2.

Received Amendment No. 4, providing for completion of project within 11 months from date of contract instead of 10 months as provided in Amendment No. 3.

4/13/53 Received summary of monthly reports by Audit Division in lieu of Final Audit.

7/1/53 Received Final Field Team's Report concurring that no certification of discovery should be issued.

8/7/53 Received memo from W. F. Dietrich, USBM, concurring with Final Field Team's Report.

8/24/53 Received memo from D. M. Larrabee, USGS, concurring with Final Field Team's Report.

Resume of Work: (This is a copy of Final Report by the Field Team.)

"The Little East Fork Mica Mine is 16.5 miles S. 32° E. of Waynesville, Haywood County, North Carolina, near the headwaters and on the west side of Little East Fork of Pigeon River. Access to the mine is difficult at all times by jeep.

"Accomplishments under this contract consisted of improving two miles of existing road and building 0.75 miles of new jeep road, preparing portal site, and driving 130 feet of drifts and crosscuts. No appreciable amount of strategic mica was found. The Field Examiners are of the opinion that a commercial deposit of strategic mica was not found, therefore, no certification of discovery should be made."

Unit Costs:

There were a total of 130 feet of drifting driven at a unit cost of $21.00 per foot, or a total of $2,730. In addition, $3,324.16 was expended; which includes improvement of 2 miles of old road, construction of 0.75 miles of new road, labor, supervision, supplies and equipment rental, bringing the total cost of the project to $6,054.16.

Project Cost: (Per summary audit review 5/15/53).

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

Total cost billed by Contractor		$6,160.66
Exceptions:		
By DMEA Finance Officer	$-0-	
Herewith (schedule attached)	106.50	106.50
Total accepted cost		$6,054.16
Government participation @ 90%		$5,448.74

Comments and Recommendations:

The report by the Field Team indicates that the deposit is not outstanding and the mica recovered is of inferior quality and not sufficiently abundant to justify a commercial operation. The Nonmetallic Minerals Division concurs with the examiners that no certification of discovery should be made.

W. C. Anderson
Nonmetallic Minerals Division

WCAnderson:gad 8/26/53

Copy to: Admr. R. File
Docket File
Mr. Houk

Audited RR 4-13-53

[redacted] ANALYSIS SHEET - DMEA PROJEC[redacted]

☑ Actual Cost

☐ Certified

Analysis as of 12-6-54
Incl. Voucher for Mar. 1953

☐ Agreed Unit Costs

Name Fred Arrowood

Docket No. 1875

State N.C.

Commodity Mica

Idn-E No. 314

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting	130 ft	$ 3400 00	130 ft	$ 2730 00	$ 2730 00
Raising					
Shafts					
Winzes					
Drilling (Specify)					
Surface Excavation		$ 200 00			$ 200
Underground Excavation					
Roads and Trails		$ 3000 00		3324	$ 3124 16
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals		$ 6400 00			$ 6054 16

Prepared by Keating

April 19, 1954

Mr. Fred Arrowood

Hazelwood, N. C.

Re: DMEA-1875X, Idm-E 314 (mica)

Dear Mr. Arrowood:

Your check for $95.85 for refund of the overpayment on the subject exploration contract has been received, and forwarded to the Finance Office. Thanks for clearing up this matter, as we can now close the records on the contract.

Very truly yours,

Robert A. Laurence
Executive Officer, DMEA
Region 7

RAL/sm
cc:
Beck
Lynch
Opr. Com.
Chambers
Files

COPY

Defense Minerals Administration
RECEIVED
MAR 24 1954

COPY

(3/20/54 postmarked at
Hickory, N. C.)

3/18/54
Conover, N. C.

DMEA-1875X, Idm-E 314 (mica)

Mr. Robert A. Laurence

Dear Mr. Laurence

In reply to your letter of 11th in regard to over paid account I am very sorry I havent taken cair of this sooner. I will asure you that I will take cair of this through the State Bank of Hazelwood by the 10th of next month as I will be in Hazelwood by that time

Thankin you very much for your patience

Very truly yours

s/ Fred Arrowood

copied sic.
zm.

cct
Opr. Com.
Finance Office
Laurence
Lynch
Beck

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 38, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

March 11, 1954

Mr. Fred Arrowood

Canover, North Carolina

Re: Docket No. DMEA-1875 (mica)
Little East Fork Mica Mine
Haywood County, N. C.
Contract Idm-E 314

Dear Mr. Arrowood:

On November 3, 1953, we received a letter from you dated October 28, 1953, in which you assured us that you would take care of the matter of $95.85 which you owe the Government as overpayment on the subject contract. Over four months have gone by and we have not received your check for that amount.

Please advise this office at your earliest convenience what you intend to do about this matter.

Very truly yours,

Robert A. Laurence
Executive Officer, DMEA
Region VII

RAB/zm
cc:
Beck
Lynch
Opr. Com.
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
ROOM 13, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

November 3, 1953

Memorandum

To: Operating Committee, D M E A - Washington

From: Acting Executive Officer, DMEA - Region 7

Subject: Fred Arrowood Docket No. DMA-1875X (mica) Idm-E 314, Little East Fork Mica Mine, Haywood County, N. C.

Attached is a copy of a letter received from the subject contractor today in regard to the overpayment on his contract. This is in reply to our letters of April 28, June 25 and September 24, 1953.

Wm. A. Beck

Wm. A. Beck

COPY COPY

(Copied Sic)

DMEA-1875X

10/28/53
Conover, N. C.

Mr. Wm. A. Beck

Dear Sir:

In reply to your letter of a few days ago in regards to the 95.85 I have bin having a hard roe for the past while I have a job coming up in the next 30 days and I will asure you that I will take cair of this as soon as posable which wont be long.

Thankin you Very much for your patince and waiting

Again thankin you

s/ Fred Arrowood

Copied SIC by
xm. 11/3/53

cc: Laurence
Lynch
Oper. Com.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
ROOM 13, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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SEP 28 1953

September 24, 1953

Mr. Fred Arrowood
RFD # 1
Waynesville, N. C.

Re: DMEA-1875X, Idm-E314 (mica)

Dear Mr. Arrowood:

Kindly refer to our letters of April 28 and June 25,1953 and advise us when we may expect your check in the amount of $95.85.

This amount is 90 percent of the $106.50 which you overcharged on the subject contract and which the Government paid you in error.

We would appreciate a reply to this letter advising us what you intend to do about this matter.

Very truly yours,

Wm. A. Beck

WAB/sm
cc:
Laurence
Lynch
Opr. Com.
Files

IN REPLY REFER TO:
DEPARTMENT OF THE INTERIOR G-MD-CNM
Defense Minerals Administration
RECEIVED
AUG 24 1953

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

August 21, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-1875 (mica)

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey
Applicant: Fred Arrowood, R.F.D. #1, Waynesville, North Carolina.
Name of property: Little East Fork mine.
Location of property: 16.5 miles S. 32° E. of Waynesville, North Carolina.
Date of field team report: June 24, 1953.
Authorship of field team report: Kefton H. Teague and Lawrence E. Shirley.
Field team's recommendation: Project completed and no certification made.
Comments: The small amount of mica found was not strategic.
ACTION SUGGESTED: Follow field team's recommendation.

D. M. Larrabee

D. M. Larrabee

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

August 7, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-1875, Mica, Little East Fork Mine, Haywood County North Carolina

I concur in the field team's recommendation that no certification of discovery be issued for this project.

W. F. Dietrich

W. F. Dietrich

Haywood

C O P Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13, POST OFFICE BLDG.
KNOXVILLE 2, TENN.
June 26, 1953

Received
JUL 1 1953

Memorandum

To: Chairman, Operating Committee-DMEA - Washington

From: Field Team, D M E A - Region 7

Subject: Final Reports (mica)

Transmitted herewith are four copies each on the following:

DMEA-1875, Idm-E314, Fred Arrowood, Operator.

DMEA-2368, Idm-E405, Westall Mine, W. B. Chrisawan, Opr.

DMEA-2533, Idm-E407, "A" Mine, Wilson & Vanwerry, Oprs.

The Field Team concurs that no certification should be issued on the above contracts.

/s/ ROBERT A. LAURENCE
Robert A. Laurence, Executive Officer
DMEA Field Team, Region 7

/s/ WM. A. BECK
Wm. A. Beck, for V. J. Lynch
U. S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE

7-8-53
(Date)

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 2 1953

FINAL F.T. REP.

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FINAL REPORT
BY
FIELD TEAM, REGION VII

ON

DMEA-1875

LITTLE EAST FORK MINE (Mica)
Haywood County, N. C.

By

Kefton H. Teague, Geologist
U. S. Geological Survey

****

Lawrence E. Shirley, Mining Engineer
U. S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
7-8-53
(date)

June 24, 1953

FINAL REPORT

on

DMEA-1875X, LITTLE EAST FORK MINE (mica)
Contract Idm-E314
Operator: Fred Arrowood, RFD #1, Waynesville, N. C.

The Little East Fork Mica Mine is 16.5 miles S. 32° E. of Waynesville, Haywood County, North Carolina, near the headwaters and on the west side of Little East Fork of Pigeon River. Access to the mine is difficult at all times by jeep.

Accomplishments under this contract consisted of improving two miles of existing road and building 0.75 miles of new jeep road, preparing portal site, and driving 130 feet of drifts and crosscuts. No appreciable amount of strategic mica was found. The Field Examiners are of the opinion that a commercial deposit of strategic mica was not found, therefore, no certification of discovery should be made.

The project began May 22, 1952 and was completed on March 21, 1953. After the access road was completed it was found that the preparation of the portal site could best be accomplished by hand work. The portal site was prepared and a drift driven on pegmatite for 93 feet, and continued on for an additional 13 feet, for a total length of 106 feet. Two crosscuts were driven in the foot wall; one crosscut is 36.5 feet from the portal and is 13 feet long; the other crosscut is 62 feet from the portal and is 11 feet long.

The attached map shows the location, extent, and type of rocks encountered during the project. The main drift is driven for the first 62 feet in a general S 40° W. direction, and the last 44 feet in a S 20° W., direction. This drift is in pegmatite for 93 feet, following the pegmatite-biotite gneiss hanging wall contact. This contact is rather regular, dipping about 60° NW. At a point 13 feet from the face, the pegmatites assume a steeper dip and the strike changes to almost due south; this feature accounts for the "loss of the vein" by the operator. The pegmatite followed by the drift is from 6 to 8 feet thick. It is medium coarse grained and appears to be unzoned. Most of the mica recovered was obtained from the hanging wall zone, although scattered books occur throughout the pegmatite.

In addition to the pegmatite followed in the main drift, the crosscut 36.5 feet from the portal cut another pegmatite which is parallel to the drift pegmatite, and about 8 feet from it. In general, the quality of the mica in this 4-foot pegmatite is better than the one extensively explored, but the mica books are not abundant. This pegmatite is unzoned also.

Reviewed by
DMEA OPERATING COMMITTEE

7-8-53
(date)

Most all mica recovered from the main pegmatite is of inferior quality (3350 pounds). It is all bent, cracked, hard, poor splitting, ruby colored and some is mineral stained. The largest book observed was about 8 inches in diameter. The largest trimmed pattern that could be produced from that obtained is 2 x 2 inches, but most is of punch and scrap size only. In general the mica obtained from the crosscut is flatter, but otherwise is similar. It is not sufficiently abundant to justify a commercial operation. The examiners do not believe that the mica found by this project is present in adequate amounts to constitute a discovery.

Expenditures:

(a)	Total approved	$6,400.00
(b)	Total cost of project	6,054.00
(c)	Government's share of cost	5,448.74*
(c)	Government's share unexpended	311.26
(e)	Value of production during operation	500.00 (est).

* There was an overcharge by the Operator of $106.50, 90 percent of which belongs to the Government ($95.85). A letter has been sent the Operator requesting this refund.

This project was conducted satisfactorily. Much of the delays in completing the project was caused by winter weather and the inaccessible location of the project.

No equipment of salvageable value was purchased for the project.

June 24, 1953.

Kefton H. Teague, USGS

L. E. Shirley, USBM

zm

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
ROOM 13, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

June 25, 1953

Mr. Fred Arrowood
R. F. D. #1
Waynesville, N. C.

Re: DMEA-1875X, Idm-E314 (mica)

Dear Mr. Arrowood:

Please refer to our letter of April 28, 1953 in regard to the overcharge of $106.50 on the above contract, and send us your check in the amount of 90 percent of $106.50 or $95.85 so that we may close your account.

Very truly yours,

Robert A. Laurence
Executive Officer, DMEA
Field Team, Region 7

WAB/mm

cc:
Laurence
Lynch
Beck
Opr. Com.

Mr. Feitler

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
ROOM 13, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 30 1953

April 28, 1953

Mr. Fred Arrowood
R. F. D. # 1
Waynesville, N. C.

Re: A-1875X, Lm-8314 (mica)

Dear Mr. Arrowood:

The Contract Administration and Audit Division of the Defense Minerals Exploration Administration have completed an audit of your account and have taken exception to charges of $106.50. Their schedule of exceptions are as follows:

Exhibit "A" of the contract provided an "allowable maximum" of $200.00 for cleaning up old pits with a bulldozer. Amendment No. 1 provided for "hand labor not to exceed $200.00 for cleaning our old pits in lieu of bulldozing"

Charges by the Operator were as follows:

May-June MF-104	- Labor	- $35.50	
	Supervision	- 71.00	
July MF-104	Labor	112.00	
	Supervision	90.00	
			$306.00
"Allowable maximum"			200.00
Excess "for sole account of the Operator" per Article 5 of the contract			$106.50

Since you have already been paid the total amount of your vouchers a repayment of 90 percent of $106.50 or $95.85 is in order.

Please mail your check in the above amount, made out to the Treasurer of the United States, to this office at your earliest convenience.

Yours very truly,

Wm. A. Beck, Acting Executive Officer
DMEA Field Team, Region VII

WAB/mm
cc:
Mr. Chambers-2
Finance Officer-2
Mr. Lynch
Sequence

FILE COPY
SURNAME:

Feitler
Houk
Carr

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

600

April 6, 1953

Memorandum

To: Chairman, Operating Committee

From: Nonmetallic Minerals Division

Subject: Review of Proposed Amendment No. 4, Docket No. DMEA-1875 - Mica
Fred Arrowood
Little East Fork Mine
Haywood County, North Carolina
Contract No. Idm-K314

Purpose: To allow sufficient time to complete the work by allowing eleven months instead of ten months as provided in Amendment No. 3.

Justification: Inclement weather caused unforeseen delays.

Recommendation: The Nonmetallic Minerals Division recommends concurrence with this amendment which was executed March 10, 1953 in the field.

/s/

Stanley A. Feitler
Nonmetallic Minerals Division

SAFeitler:gad 4/6/53

Copy to: Admr. R. File
Docket File
Mr. Houk

RECEIVED
APR 17 1953
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

Forbett Copy

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
ROOM 13, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

March 30, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 1 1953

Memorandum

To: Operating Committee, DMEA- Washington

From: Executive Officer, DMEA-Region 7

Subject: Contract Amendment No. 4. DME-1875, Idm-E314. Fred Arrowood (mica)

Transmitted herewith are three signed copies of the above amendment. One copy was retained by the Operator, one sent to the Finance Officer, and one retained by this office.

Robert A. Laurence
Robert A. Laurence

RECEIVED
APR 17 1953
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

cal 4/1/53

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 1 1953

INTERIM REPORT

DMEA-1875X Idm-E314 (mica) LITTLE EAST FORK

OPERATOR: Fred Arrowood, Route #1, Waynesville, North Carolina

LOCATION: 16.5 miles S 32° E of Waynesville, Haywood County, N. C. and near the headwaters and on the west side of Little East Fork Creek.

This project is nearing completion. A main drift was driven for 106 feet and was discontinued after losing the dike along the strike. This drift was carried on for an additional 13 feet in biotite schist with quartz showing in the heading. Additional exploration in the form of two short drifts were recommended and recent work has been concentrated on the SE wall. Heading #1 was driven at a point 62' from the portal in a S 55° E direction for 11 feet and was discontinued after picking up country rock. This drift did not yield mica. Heading #2 was located 36.5 feet from the portal and was driven in a S 40° E direction for 10 feet. Work in this drift yielded about 125 lbs. of mica, some of which could be processed for sale under the current program. Largest sizes observed were 4" x 5" x ½". The color of the mica obtained was good, but some of it was cracked and slightly bent. Vein material was composed of feldspar, lesser amounts of quartz and mica. Vein material with mica showing and biotite schist in the top were observed in the heading. This pegmatite, dipping about 40° W, appears to be a different and distinct body from that already explored. The remaining 3 feet under the contract will be driven at this location. The operator estimates that approximately 3000 lbs. of block mica has been removed during entire operation.

L. E. Shirley

L. E. Shirley, Mining Engineer
U. S. Bureau of Mines

March 18, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 1 1 1953

INTERIM REPORT

DMEA-1875X Idm-E314 (mica) LITTLE EAST FORK MINE

OPERATOR: Fred Arrowood, Route # 1, Waynesville, North Carolina.

LOCATION: 16.5 miles S 32° E of Waynesville, Haywood County, North Carolina and near the headwaters and on the west side of Little East Fork Creek.

Present heading in the drift is now at 106 feet. This project, which consisted of 130 feet of adit to be driven along the pegmatite dike, has advanced slowly. Pegmatite material was cut to about 93 feet, at which point the dike pitched downward. The operator was advised to continue drifting along the strike until it could be definitely proven that a roll had not developed in the vein or that the mica schist was continuous. After Examination, the Field Examiners decided that further exploration with the remaining 24 feet would be by crosscuts into the hanging wall and footwall, at designated locations where mica of best quality and quantity was concentrated, as shown in previous exploration.

Extensive recommendations made at time of Safety Engineers visit, January 9, 1953, have been partially complied with. The mine entrance has been retimbered and overhead lagging has been loaded with fill material. The loose roof has been barred down.

L. E. Shirley
L. E. Shirley, Mining Engineer
U. S. Bureau of Mines

K. H. Teague
K. H. Teague, Geologist
U. S. Geological Survey

February 24, 1953

DMEA-1875
F-3164

February 9, 1953

Mr. Fred Arrowood, mine operator
Little East Fork Mica Mine
Route 1
Waynesville, North Carolina

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 11 1953

Dear Mr. Arrowood:

Attached is a Safety Inspection Report of your Little East Fork Mica Mine made by Mr. Roy G. Stott, mining health and safety engineer, on January 9, 1953.

Very truly yours,

M. C. McCall

M. C. McCall, Chief,
Accident Prevention and Health
Division, Region VII

cc: R. A. Laurence, Room 13, Post Office Bldg., Knoxville 2, Tenn.
W. A. Meek (3) Room 13, Post Office Bldg., Knoxville 2, Tenn.
F. H. Shuford, State Department of Labor, Raleigh, N. C.
J. L. Fitzgerald, Box 7366, Asheville, N. C.
Director, Defense Minerals Exploration Administration, Washington, D. C.
S. H. Ash
J. Westfield
A. Gabriel
J. R. Thoeman, Bureau of Mines, Tuscaloosa, Ala.
Roy G. Stott
District Office

SAFETY INSPECTION REPORT
LITTLE EAST FORK MICA MINE
(NEAR) WAYNESVILLE, HAYWOOD COUNTY, NORTH CAROLINA

January 9, 1953

By

Roy G. Stott
Mining Health and Safety Engineer

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 11 1953

Originating Office - Bureau of Mines
210-12 Social Security Building
Birmingham 3, Alabama
M. C. McCall, Chief
Accident Prevention and Health Division
Region VII

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

SAFETY INSPECTION REPORT
LITTLE EAST FORK MICA MINE
(NEAR) WAYNESVILLE, HAYWOOD COUNTY, NORTH CAROLINA

January 9, 1953

By

Roy G. Stott
Mining Health and Safety Engineer

INTRODUCTION

This report is based on an inspection made at the request of the Defense Minerals Exploration Administration to determine conditions and practices relating to health and safety and to propose recommendations for correcting hazards. The inspection party consisted of Roy G. Stott, mining health and safety engineer, Bureau of Mines, William A. Beck and Laurence E. Shirley, mining engineers, Defense Minerals Exploration Administration and Fred Arrowood, mine operator.

GENERAL INFORMATION

The Little East Fork Mica mine land is a part of the Pisgah National Forest lands and has been under lease to Fred Arrowood, the mine operator, of Hazelwood, North Carolina since 1942. A prospect loan has been granted by the DMEA under Docket No. 1875, Contract Idm E-314.

The mine is located near the headwaters of and on the west side of the Little East Fork Creek, a north-flowing tributary of the Pigeon River. It is about 12 airline miles S32°E of Waynesville, Haywood County, North Carolina. The mine is accessible by a logging road and a bull-dozed roadway from the Daniel Boone Scout Camp to within 400 feet vertically below the mine entrance.

The mine consists of a hillside adit prospect driven 92 feet into the hill along the strike of a quartz vein. The vein is one of three exposed pegmatite dikes striking about N10°E and dipping about 45° to the northwest in a hard gneiss country rock. The rock formation is fractured and "blocky".

Two men are employed at the mine and drive to work daily in a jeep. At the time of the inspection it had been raining and work was temporarily suspended because of poor road conditions.

An Ingersoll-Rand Model 69 gasoline engine-powered 105 cfm portable air compressor is situated at the extreme end of the roadway about 400 feet below the mine. The compressed air is piped to the adit for drilling and for ventilation. All drilling is done dry. No nearby water is available and a hardship would be imposed to require wet drilling especially during wet weather when the road is accessible only on foot. Reportedly, respirators are worn by the miners when drilling.

A small frame lean-to shed near the mine entrance serves for storage of supplies and houses a small black-smithing forge.

Reportedly, six to eight cases of dynamite are stored in an abandoned adit located approximately 300 feet uphill and to the west of the mine. The latter adit entrance is partially blocked by blasted material and overburden and is not timbered or equipped with a door or lock.

A small mine car on 20-pound rail is used for haulage of waste to the dump.

SAFETY RECOMMENDATIONS

1. The mine entrance should be more securely timbered for protection against fall of ground.

   a. At least one additional cap should be installed under the projecting ends of the overhead lagging.

   b. Posts should be set under the caps to reduce the span.

   c. The hitched cap timbers should be spragged or blocked tightly (horizontally) in place to prevent lateral movement of the hitches.

   d. The top lagging should be covered by at least 24 inches of fill.

   e. In addition to the above it is advisable to erect a timber cribbed wall as close to the high steep rock bank as possible and braced by backstays.

2. At least two 6-foot scaling bars should be provided and the loose roof and ribs barred down or timbered. The roof and ribs should be tested and scaled daily. A short length of air hose on each scaling bar will protect miner's hands from sliding down the bar.

3. A noticeable strong odor of blasting smoke was evident 22 hours after blasting. No indication of carbon monoxide gas was found on the colorimetric indicator, and the flame safety lamp gave no indication of lack of oxygen, however, it is strongly recommended compressed air ventilation be provided for at least 30 minutes before men return to the face after blasting or after "lay-off" periods.

4. Dynamite should not be stored in the lean-to shack near the mine entrance.

5. The dynamite storage adit should be timbered at the entrance and provided with a door and lock.

6. The dynamite storage adit should have the loose roof and ribs barred down and a wooden platform for storing the dynamite to keep it off the damp floor.

7. Miners should be required to wear hard hats.

8. Hand ropes stretched along a regular foot path from the compressor to the mine entrance and from the mine entrance to the magazine would greatly reduce the possibility of serious falls.

MISCELLANEOUS

Due to the remoteness of the mine and the difficulty of getting to the mine it would be advisable to keep a supply of first-aid equipment on the job. A first-aid manual and a copy of Miners Circular 54 "Prevention of Explosives Accidents In Metal Mines" are to be included with Mr. Arrowood's copy of this report.

ACKNOWLEDGMENT

The cooperation of Mr. Arrowood during this inspection is gratefully acknowledged.

Respectfully submitted,

/s/ Roy G. Stott
Roy G. Stott
Mining Health and Safety Engineer

FILE COPY
SURNAME:

Feitler
Houk

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

February 2, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Amendment No. 3 - Docket No. DMEA-1375 - Mica
Fred Arrowood
Route 1
Waynesville, North Carolina
Little East Fork Mine
Haywood County, North Carolina
Contract No. Idm-E314

Purpose: To allow sufficient time to complete the program.

Method: Amend Article 3 to allow ten months instead of seven months for completion.

Recommendation: Concurrence

Justification: This prospect is in the Pisgah National Forest and time was lost when work was suspended by order of the Forest Service because of the fire hazard.

SAF

Stanley A. Feitler
Nonmetallic Minerals Division

SAFeitler:gad 2/2/53

Copy to: Admr. R. File
Docket File
Operating Committee
Mr. Houk

RECEIVED
FEB 3 - 1953
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

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

Room 13, Post Office Building
Knoxville, Tennessee

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 7 1953

January 5, 1953

Memorandum

To: Operating Committee, D M E A - Washington

From: Executive Officer, D M E A- Region 7. Knoxville, Tenn.

Subject: Amendment No. 3. DMEA-1875, Idm-E314.(mica) Fred Arrowood.

Transmitted are three copies of the above subject amendment. One copy was retained by the operator, one by this office, and one sent to the Finance Officer, Norris, Tennessee.

Robert A. Laurence
Robert A. Laurence

RECEIVED
FEB 3 - 1953
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

zm

cc
1-7-53

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 15 1952

INTERIM REPORT

DMEA-1875X Idm-E314 (mica) LITTLE EAST FORK MINE

OPERATOR: Fred Arrowood, Route # 1, Waynesville, North Carolina.

LOCATION: 16.5 miles S 32° E of Waynesville, Haywood County, N. C. and near the headwaters and on the west side of Little East Fork Creek.

No one was present at time of visit to this mine. Operator has not been able to work a full month, but some progress was noted. Exact measurement could not be made because muck had practically filled old cut and starting location had been filled in. Present heading is still in a semi-weathered pegmatite with scattered books of mica up to 1½" x 2" present. Mica observed was badly bent and wet, contained black specks and hair cracks. About 15' of drifting was accomplished during this month.

L. E. Shirley

L. E. Shirley, Mining Engineer
U. S. Bureau of Mines

November 26, 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
SOUTHEASTERN REGION
REGION VII

OFFICE OF
REGIONAL DIRECTOR

P. O. BOX 217
NORRIS, TENNESSEE

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 13 1952

November 11, 1952

Memorandum

To: Jay L. Chambers, Defense Minerals Exploration Administration, Washington, D. C.

From: Administrative Officer, Region VII, Norris, Tennessee

Subject: Monthly reports and vouchers

We are enclosing two copies each of the following monthly reports and vouchers:

Idm-E-303 Dean Gaston Mica Mines
Docket No. DMEA-2345
6th payment - month of October 1952
Amount $445.50

Idm-E-311 Piedmont Minerals, Inc.
Docket No. DMEA-2377
5th Payment - month of October 1952
Amount $1012.50

Idm-E-314 Fred Arrowood
Docket No. DMEA-1075X
5th payment - month of October 1952
Amount $207.90

Idm-E-393 Dixie Minerals, Inc.
Docket No. DMEA-2293
1st Payment - month of October 1952
Amount $756.00
Actual Starting Date: ?

Idm-E-405 Harris Gibbs and W. B. Chrisman
Docket No. DMEA-2368
1st payment - month of October 1952
Amount $720.00
Actual Starting Date: October 15, 1952

Nolon E. Miller

CC: R. A. Laurence
W. A. Beck

Note: Mr. Beck, please advise actual starting date on contract Idm-E-393.

DEPARTMENT OF THE INTERIOR
Bureau Mines Minerals Administration
RECEIVED
NOV 18 1952

INTERIM REPORT

DMEA-1875 Idm-E314 (mica) LITTLE EAST FORK MINE

OPERATOR: Fred Arrowood, Route #1, Waynesville, North Carolina.

LOCATION: 16.5 miles S 32° E of Waynesville, Haywood County, North Carolina and near the head waters and on the west side of Little East Fork Creek.

Progress on this project is satisfactory considering unexpected events, which has caused the operator to cease operations temporarily. The operator was contacted at his residence. The writer was informed that the Pisgah National Forest had been closed by order of the Director and that all activities within it's limits had ceased as of October 31, 1952. As a result, the operator had to cease mining until sufficient rains set in to remove prevalent fire hazards.

The operator had advanced his heading about 12 feet as of date of visit. Mica recovery remains about the same as that reported on October 9, 1952 and heading of drift is in pegmatite material.

L. E. Shirley

L. E. Shirley, Mining Engineer
U. S. Bureau of Mines

November 3, 1952

FILE COPY
SURNAME:

Hearne
L F Hearne

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

Case
10/31

October 23, 1952

Docket No. DMEA-1375 - Mica
Contract No. Idm-K314
Fred Arrowood
Little East Fork Mine
Haywood County, North Carolina

Memorandum

To: Chairman, Operating Committee

From: Chief, Nonmetallic Minerals Division

Subject: Contract Amendment No. 2

Recommended action: Approval.

Amendment No. 2 to Contract Idm-K314 in the subject docket was executed by the Operator and the Executive Officer DMEA Field Team, Region VII as of September 22, 1952. It amends Article 3 to provide that the Operator is to complete the project within a period of seven months from date of contract, instead of 4½ months as provided in the original contract.

This amendment is necessary because delays in preparing for underground work have made it impossible to complete the job in the time originally specified.

Lawrence G. Houk, Chief
Nonmetallic Minerals Division

LFHearne

Copy to: Adm. R. File
Docket File
Mr. Houk

U.S. DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 15 1952

INTERIM REPORT

DMEA-1875 Idm-E314 (Mica) LITTLE EAST FORK MINE

OPERATOR: Fred Arrowood, Hazelwood, North Carolina

LOCATION: 16.5 miles southeast of Waynesville, N. C.

Operator has not been working on location for past few days due to inclement weather and lack of proper equipment. Contact was made at residence. Operator has now obtained an air compressor and jackhammer which will be at location on or about October 13 and active operations are expected to begin at that time. Recent mica recovery, as observed, indicates a slight increase in the quality and quantity obtained since last report was made.

L. E. Shirley

L. E. Shirley, Mining Engineer
U. S. Bureau of Mines
Mining Branch
Minerals Technology Division
Region VII

October 9, 1952

FILE COPY
SURNAME:

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

Room 13, Post Office Building
Knoxville 2, Tennessee

October 6, 1952

Mr. Fred Arrowood
Route 1
Waynesville, N. C.

DMEA-1875, Idm-E314 (mica)

Dear Mr. Arrowood:

Your September voucher and progress report have been received, and are being forwarded to the finance office for payment.

Please provide us with a narrative report describing the work to date. This should include not just the footage of tunnel advance, but also a description of the pegmatite and mica, if any, encountered in the tunnel.

Yours very truly,

Robert A. Laurence
Executive Officer, DMEA
Region 7

RAL/am

ccs
Beck
Lynch
Opr. Com
Files

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
OCT 8 '52

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 3 1952

INTERIM REPORT

DMEA-1875 K, Idm-E 314, (mica)

Operator: Fred Arrowood, Hazelwood, N. C.

Mine: Little East Fork Mine, located about 16 miles southeast of Waynesville, Haywood County, North Carolina.

The adit at this place is in 57 feet from portal. Drift is being driven along the handing wall of the pegmatite, between the wall rock and quartz core. This part of pegmatite is about 5 feet thick. Todate an estimated 1500 pounds of mica, the largest of which is 8 inches across, has been taken from the adit. The project is progressing satisfactorily.

Kefton H. Teague, Geologist
U. S. Geological Survey

L. E. Shirley, Mining Engineer
U. S. Bureau of Mines

September 30, 1952

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
Room 1, Post Office Building
Knoxville 2, Tennessee

September 22, 1952

Mr. Fred Arrowood
Route 1
Waynesville, North Carolina

Dear Mr. Arrowood:

Your August Monthly Report and Voucher has been received by this office and is being transmitted to the Finance Officer for processing.

The following corrections have been made on the voucher so please correct your copy to coincide with ours:

1. Your tunnel work in the amount of $798.00 should have been listed under Item 1 (crosscutting).

2. Under item (4) rental, (compressor and hammer) - Our records show that $470.00 had been previously reported and you show only $235.00. The totals under this item should be $235.00, $470.00, and $705.00.

3. The totals at the bottom of the page should be $1,033.00, $3,195.00 and $4,228.66.

Very truly yours,

Wm. A. Beck for R. A. Laurence
Executive Officer
Field Team, Region VII

WAB/mg

cc - Beck
Lynch
Laurence
USBM - Norris - 3 copies

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

Room 13, Post Office Building
Knoxville, Tennessee

September 12, 1952

Department of the Interior
Defense Minerals Administration
RECEIVED
SEP 15 1952

Mr. Fred Arrowood
Route # 1
Waynesville, North Carolina

Re: DMEA-187X, Idm-314
Little East Fork Mine (mica)

Dear Mr. Arrowood:

Your monthly progress report and voucher have been received. They are being returned to you, enclosed herewith, as they cannot be accepted in their present form.

Please note that your contract provides for driving tunnel at $21.00 per foot, and rental of compressor and jackhammer for two months at $235 per month. Therefore, all that can be approved for payment is:

38 feet of tunnel @ $21 per foot	$798.00
Rental of compressor & jackhammer	235.00
	$1033.00

Approval of this amount will be made upon receipt of properly prepared voucher. It is not necessary to submit payrolls, or invoices for anything except the rental of the compressor and jackhammer.

Please note also that payment was made in July for rental of the compressor and jackhammer for work on the tunnel, therefore, August payment will complete the two months allowed in the contract and payment cannot be made for this item for September. Your September voucher should therefore include only the footage driven, at $21 per foot.

When you have prepared the voucher and progress report properly, please send them to Mr. Peyton, in Asheville, instead of directly to this office.

Very truly yours,

Robert A. Laurence,
Executive Officer, DMEA
Field Team, Reg. 7

RAL/xm
cc: Opr. Com.
Peyton-Beck
Morris
Files

INTERIM REPORT

DMEA-1875, LITTLE EAST FORK MINE (mica)

Applicant: Fred Arrowood, Hazelwood, N. C.

Contract Idm-E314

Progress on this project has been slow. When last visited on August 14, 1952, the adit had been advanced 32 feet and pegmatite was exposed for 3 feet at the heading. Some mica had been recovered, but mostly in small sizes. It is anticipated that progress will be accelerated in the future.

Kefton H. Teague

Kefton H. Teague, Geologist
U. S. Geological Survey

August 29, 1952

600

8/13/52

Memorandum

To: Mr. Robert A. Laurence, Executive Officer, Region VII, DMEA

From: Operating Committee, DMEA

Subject: Interim Reports

Reference is made to the Interim Reports on the following Contracts:

DMEA-1875	Fred Arrowood
DMEA-1900	Powder Mill Mining Co.
DMEA-2416	Yancey Mica Mine
DMEA-2344	Caleb J. Keller
DMEA-2375	Swannanoa Mine
DMEA-2379	Sinkhole Miners

Please note Memorandum No. 9, dated July 15, 1952, from the Operating Committee to all Field Teams, Page 4, Interim Reports. It is suggested that the Field Team adhere to the outline covering all phases of the operation. If the Field Engineer can complete a supplemental interim report from his notes this office would be pleased to receive it; however, if this is not possible all subsequent interim reports should follow the outline as closely as possible.

- S - Frank E Johnson
8/13/52
Chairman, Operating Committee
Defense Minerals Exploration
Administration

Approved:

C. H. Johnson
Member, Bureau of Mines

D. M. Lemmon
Member, Geological Survey

LGHouk:gad;mp 8/12/52
cc: Operating Committee
Adm. Reading File
Files
Mr. Houk
Mr. Dietrich
Mr. Norton, G-232, GSA Bldg.

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Room 13, Post Office Building
Knoxville 2, Tennessee

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 11 1952

August 8, 1952

Mr. Fred Arrowood

Waynesville, N. C.

Re: DMLA-1875X, Idm-E314(mica)
Progress Report.

Dear Mr. Arrowood:

Your monthly report and voucher for work during July at the Little East Fork Mine in Haywood County, N.C., has been received. It is being returned herewith, as it is unacceptable in its present form.

The change from bulldozer work to hand work in the old pits was approved in advance by Mr. Peyton and Mr. Teague, and a Maximum of $200 can be paid for that work. In order to do so, however, an amendment to the contract is necessary. The amendment is enclosed. Please sign all six copies, keep one and return the original and four copies to me. Then, when you resubmit the voucher, you should show the amount of labor and supervision on this phase of the work only, accompanied by a certified copy of your payroll.

Also an invoice or receipt (marked "certified true copy" and signed by you) for the rental of the compressor and jackhamer must accompany the voucher.

Your narrative report says that "forty feet of rock tunnel or cut was excavated." Mr. Peyton tells me that all this 40 feet was an open cut and that, on July 31, there was no underground work. As the contract (exhibit "A", 1st and 4th paragraph) specifically calls for a tunnel, and as this change to open cut work was without prior approval of the Government, we cannot approve payment for this work. When supported with the proper documents, we can and will approve the following items:

Rental of air compressor and jackhammer	$235.00
Labor and Supervision, cleaning out pits, actual cost but not to exceed	200.00

The underground work should be started at once. On your next voucher, it will then be necessary to show only the amount of tunnel driven during the month, which will be paid for at the specified rate of $21.00 per foot, in addition to rental on the compressor & jackhammer.

Mr. Peyton and Mr. Teague will call on you at the project next week, and if there are any questions about this, you can take it up with them.

Very truly yours,

Robert A. Laurence
Executive Officer, IMEA
Field Team, Region VII

RAL/sm
cc:
Beck
Lynch
Opr. Com.
Morris
D. File
Files

INTERIM REPORT

DMEA-1875X, Idm-1314 (mica)

LITTLE EAST FORK MINE

Fred Arrowood, applicant
Haywood County, N. C.

Face advanced about 30 feet in preparation for going underground. Work is progressing satisfactorily.

K. M. Teague
U. S. Geological Survey

August 5, 1952

NOV 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
SOUTHEASTERN REGION
REGION VII

OFFICE OF
REGIONAL DIRECTOR

P. O. BOX 217
NORRIS, TENNESSEE

July 25, 1952

Memorandum

To: Mr. Jay L. Chambers, Defense Minerals Exploration Administration, Interior Building, Washington, D. C.

From: Administrative Officer, Region VII, Norris, Tennessee

Subject: Progress Report

We are enclosing copies of the Operator's Monthly Report and Voucher covering the following contract:

Idm-E-314
Fred Arrowood
Docket No. DMEA-1875X
Expenditures for the months of May and June 1952
1st Payment Voucher in amount of $2484.59
Actual Starting Date: May 22, 1952

Helen Miller
Helen R. Miller

Enclosures
CC: Mr. R. A. Laurence
Mr. W. A. Beck

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 28 1952

FILE COPY
SURNAME:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 16 1952

Beck
Lynch
Files
Day file
Opr. Com.

Room 1, Post Office Building
Knoxville, Tennessee

July 14, 1952

Fred Arrowood
Route #1
Wayhesville, N. C.

Re: DMA-1875X (mica)

Dear Mr. Arrowood:

Receipt is acknowledged of your monthly report and voucher for the months of May and June 1952, with accompanying invoices. These are being returned herewith for clarification.

On the back of form MF-104 you will find full instructions for making out your report. You did not supply a narrative as specified in the fourth paragraph (c) Narrative. In this please state when project was started, when the road work was completed and when the work on the adit was started.

In your unit cost and Progress Report (MF-104A) all your expenses are shown under roads and trails. Is this correct? Wasn't some work done on the portal of your tunnel or cleaning out old pits? If some work was done in preparing the tunnel entrance or cleaning out the old pits you should have prorated the costs.

You did not supply a certified copy of your payroll showing class of work, rates, and number of hours worked.

Write on the bottom of your invoices and payrolls in ink, "Certified true copy (or transcript)" and sign your name

Your reports should be signed in ink and not pencil.

In driving your tunnel you will be allowed $21.00 per foot, and it will not be necessary for you to document anything except the compressor and jackhamer.

Only the dynamite, caps, fuse, gasoline, labor, etc., that was used on the road building can be charged to it.

Hoping that this clarifies everything, we are

Yours very truly,

Wm. A. Beck, for R. A. Laurence
Executive Officer, D.M.E.A.
Region 7

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

Room 13, Post Office Building
Knoxville, Tennessee

May 20, 1952

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA, Region VII

Subject: DMEA-1375 (mica) Fred Arrowood. Contract.

Attached are four copies of the above contract signed by Mr. Fred Arrowood, the applicant. One copy was retained by this office and one by Mr. Arrowood.

Robert A. Laurence
Robert A. Laurence

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 22 1952

FILE COPY
SURNAME:

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

MAY 13 1952

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Building
Knoxville 1, Tennessee

Subject: Docket No. DMEA-1575 - Mica
Fred Arrowood
Haywood County, North Carolina
Pisgah National Forest

Dear Mr. Laurence:

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 suggested changes for consideration.

After signing of 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
(JHB)

Chairman, Operating Committee
Defense Minerals Exploration
Administration

cc 5/13

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

D. M. Lemmon (JHB)
Member, Geological Survey

LGHouk:gad 5/9/52
Copy to: Admin. Reading File
Operating Committee
Docket File
Mr. Dietrich, 3526
Mr. Norton, G-232 GSA Bldg.
Mr. Houk

Enclosures 6

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

~~WASHINGTON 25, D. C.~~
Room 13, Post Office Building
Knoxville, Tennessee

March 31, 1952

Memorandum

To: Frank E. Johnson, Chairman, Operating Committee

From: Field Team - DMEA Region VII

Subject: Mineral Lease - DMA-1875X, Fred Arrowood.
Haywood County, North Carolina

Transmitted herewith is a copy of the Mineral Lease on the above subject docket.

Robert A. Laurence

Robert A. Laurence
Executive Officer, DMEA
Region VII

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 2 - 1952

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

~~WASHINGTON 25, D. C.~~

Room 13 Post Office Building
Knoxville, Tennessee

February 8, 1952

Mr. C. O. Mittendorf
Acting Chairman, Operating Committee
Defense Minerals Exploration Admin.
Dept. of the Interior
Washington 25, D. C.

Subject: DMEA-1875 -Mica
Fred Arrowood

Dear Mr. Mittendorf:

In reply to your letter of February 5, 1952:

On December 7, 1951, we wrote Mr. Arrowood requesting copy of the Forest Service lease. No answer received. On December 10, 1951, K. H. Teague visited Mr. Arrowood's home but he was not there.

On February 1, 1952, A. L. Peyton reports that Mr. Arrowood still has not obtained the Forest Service lease, and appears unable to do so.

Mr. Arrowood was agreeable to the proposed increase from $3,508 to $6,444.

Sincerely yours,

Robert A. Laurence

Robert A. Laurence,
Executive Officer, DMEA
Region VII

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 11 1952

FILE COPY
SURNAME:

Chapman
Hunt

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

FEB 5 - 1952

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region VII
Room 13, Post Office Building
Knoxville 1, Tennessee

Subject: Docket No. DMEA-1875 - Mica
Little East Fork Mica Mine
Haywood County, North Carolina
Fred Arrowood, R.F.D. No. 1
Waynesville, North Carolina

Dear Mr. Laurence:

Reference is made to our letter of December 3, 1951, requesting a copy of the lease from the United States Forest Service on the above land which was applied for by Mr. Arrowood, No. BL-A02379. Before a contract can be prepared, we will need a copy of this lease.

Also, does Mr. Arrowood approve of the Field Team increase from $3,508 to $6,444?

Sincerely yours,

C. O. Mittendorf (fw) 2/5/52

Acting Administrator
Defense Minerals Exploration
Administration

TLChapman:gad
2/4/52
Copy to: Admin. Reading File
Docket File
Mr. Dietrich, 3526
Mr. J. J. Norton, G-228, GSA Bldg.

IN REPLY REFER TO:

G-MD-DHK

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

January 31, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED

JAN 31 1952

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-1875

To: Non-Metallic Minerals Division, DMEA
From: D. H. Kupfer, U. S. Geological Survey
Commodity: Mica.
Applicant: Fred Arrowood.
Name of property: Little East Fork Mine.
Location of property: Haywood County, North Carolina.
Field team's recommendation: Access road at $3,000 and exploratory adit (drift) along the hanging wall for a distance of 130 feet.

Comments: (1) No indication is given that the applicant approves of this increase in the loan from $3,508 to $6,444.

(2) The field team has given no data to support their contention that the previous report (Heinrich, 1944) was incorrect in assuming adit X and adit Y were on separate pegmatites.

ACTION SUGGESTED: Follow field team's recommendations.

Donald H. Kupfer

D. H. Kupfer

400

FILE COPY
SURNAME:

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

DEC 5 1951

Robertson
Hoffman
Jackson

AIR MAIL

Mr. Robert A. Laurence, Executive Officer
DMA Field Team, Region VII
Room 13, Post Office Bldg.
Knoxville, Tennessee

Re: Docket DMA-18751, Mica
Exploration Project Loan
Little East Fork Mica Mine
Haywood County, N. C.
Fred Arrowood, RFD No. 1
Waynesville, N. C.

Dear Mr. Laurence:

Before we can prepare an exploration contract for the above referred project, it will be necessary to have a copy of the lease agreement existing between the applicant and the U. S. Forest Service, or some such other agreement or permit which the U. S. Forest Service customarily makes when it grants the right to prospect, mine and produce minerals from its lands.

Your field team examination report states that there is pending a lease from the Pisgah Forest office under lease application Number DI-A02379. However, we need a copy of the actual lease agreement and as your staff have already discussed it with the applicant we will let your office follow it up and in the meantime we will hold in abeyance our preparation of the contract until we hear from you.

Sincerely yours,

C. O. Mittendorf (fw)

Acting Administrator
Defense Minerals Exploration
Administration

B.V.

J.N. 12-5

JRRobertson/jem
12/3/51
cc to: Adm. Reading File
Reports & Records
Messrs. Mittendorf
Arundale
Norton
Robertson
Field Team, Reg. VII

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

November 30, 1951

Memorandum

To: Jasper T. Robertson, DEMA
Room 4070

From: W. F. Dietrich, Chief
Ceramic and Fertilizer Materials Branch

Subject: Exploration Project Application
Docket No. DMA 1875X. Little
Fork Mine, Haywood County, N. C.
Applicant, Fred Arrowood, R.F.D. #1
Waynesville, N.C. (Sometimes called
Arrowood Mine.)

Although the field team expresses extreme doubt that sufficient reserves of mica are available to repay access road and exploration costs, the proposed work seems justifiable because of the strong possibility that adits X and Y are on the same pegmatite.

W. F. Dietrich

W. F. DIETRICH

Enclosure

400

FILE COPY
SURNAME:

Robertson

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

November 28, 1951

MEMORANDUM

To: W. F. Dietrich, Bureau of Mines
Room 3526

From: Jasper T. Robertson, DMEA
Room 4070 Ext. 2328

Subject: Exploration Project Application Docket No. DMA 1875X. Little Fork Mine, Haywood County, N.C. Applicant, Fred Arrowood, R.F.D. #1 Waynesville, N.C. (Sometimes called Arrowood Mine.)

We hand you herewith complete file on the above reference. Please review and submit any comments or recommendation which you may care to make. On top of the file is the latest Field Team report written by K. H. Teaque and A. L. Peyton. In it, on page 2, you will find a distribution of the estimated costs. This report is the latest and it fairly well summarizes the situation.

Jasper T. Robertson

JTRobertson/jem

cc to; Adm. Reading File
Reports & Records
Mr. Robertson
Docket

BL

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D. C.
4 03 PM '51

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
Room 13, Post Office Building
Knoxville 2, Tennessee

November 6, 1951

Memorandum

To: Tom Lyon, Chairman, Coordinating Committee

From: Field Team, Region VII

Subject: DMA-1875X, Fred Arrowood

Transmitted herewith are four copies of the field investigation report on DMA-1875X. It should be noted that although the Field Team recommends a certain amount of prospecting, because of the inaccessibility of the deposit and the need for an access road, cost of exploration will be high.

The original application, review, and memorandum are returned herewith.

Robert A. Laurence
Robert A. Laurence
U. S. Geological Survey

Wm. A. Beck
Wm. A. Beck for V. J. Lynch
U. S. Bureau of Mines

Enclosures

DEFENSE [redacted]ALS
ADMINISTRATION
WASHINGTON, D. C.

Nov 7 4 03 PM '51

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM, REGION VII

Little East Fork Mine, Haywood County, North Carolina

DMA-1875X, Fred Arrowood -Applicant

(Mica)

by

Kefton H. Teague, Geologist
U. S. Geological Survey

&

A. L. Peyton, Mining Engineer
U. S. Bureau of Mines

October 31, 1951

ON-SITE EXAM

Report of Field Examination on
Little East Fork Mine, Haywood County, North Carolina
Fred Arrowood , Applicant

DMA-1875X, Mica

This deposit was examined on October 31, 1951. The mine is 16.5 miles southeast of Waynesville, North Carolina. The time that elapsed between departure from Waynesville and arrival at mine was two hours. It is possible to drive a jeep to within three-quarters of a mile of the mine, and an ordinary pick-up truck can be driven within 2.75 miles if it. Therefore, before equipment can be brought to the deposit, a road will have to be constructed. Of the road to be constructed all except the portion near the mine can be built over an old tram road grade, however, from the creek up to the mine it will be entirely new, consisting of a series of switchbacks.

No new geologic data was obtained by the Field Team. The openings are the same as shown on the map attached to the application. The Field Team is of the opinion that the pegmatites exposed in Adits X and Y are the same one, which contrasts with the views expressed in the attached report (C. W. Heinrich, April 21, 1944). With the assumption that the two openings are on the same pegmatite, the following recommendations are made subject to construction of access road.

The first portion of the exploration should consist of the work as proposed by the Applicant, that is, to strip an area along the north end of the pegmatite as shown on the attached map.

Following this stripping a drift should be driven southward from the cut (Adit X area), along the hanging wall of the pegmatite for a distance of approximately 130-feet. This will place the end of the tunnel beneath Adit Y.

Estimated Costs are as follows:

	Improving 2.0 miles of existing road and construction of 0.75 mile of new road (contract)	$3000.00
Rental:	1 Bulldozer @ $10/hr. for 20 hours	200.00
	1 Compressor @ $175/ mo. for 2 months	350.00
	1 Jackhammer @ $60/ mo. for 2 months	120.00
Labor:	1 Working foreman @ $1.50/hr. for 42 shifts.....	504.00
	1 Miner @ $1.50/hr. for 40 shifts	480.00
	2 Muckers @ $1/hr. for 40 shifts	640.00
	Drill steel, bits, pipe, hand tools	450.00
	Gasoline, oil, dynamite, etc.	400.00
	Insurance, Taxes, etc.	300.00
	Estimated costs of access road and explor.	$6,444.00

Estimated Time Required to Construct ~~road~~ 30 days.

Estimation Time for Exploration 42 shifts.

October 31, 1951

K.H. Teague, USGS
A.L. Peyton, USBM

Answer to questions:

Applicant has not received copy of lease from Forest Service: however, number assigned to application for lease is BLM-A 02379, as supplied by Mr. Duncan of the Pisgah Forest office.

Griffitts Memo:

1. A road can be economically maintained to mine. Except for the last 1/4 mile of proposed road it is at a reasonable grade, thus requiring little maintenance. It is extremely doubtful that sufficient reserves are available at the deposit to repay cost of road and exploration costs. (Required production on 5% royalty $116,000 worth of mica). However, there does appear to be a considerable reserve of mica of strategic grade.

2. In order for miners to live at mine, housing facilities would have to be provided. The Field Team believes that it would be less costly to construct road than to build and maintain camp.

3. See report and attached map.

4. See answer to 1 above.

October 31, 1951

K.H. Teague, USGS
A. L. Peyton, USBM

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
Room 13, Post Office Building
Knoxville 2, Tennessee

October 3, 1951

Mr. Tom Lyon
Chairman, Coordinating Committee
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Re: Docket DMA-1875-X - Mica
Fred Arrowood

Dear Mr. Lyon:

This will acknowledge receipt, on this date, of Docket DMA-1875-X, for Fred Arrowood of Route 1, Waynesville, North Carolina.

Very truly yours,

Wm. A. Beck for R. A. Laurence
Executive Officer, DMA Field Team
Region VII

FILE COPY
SURNAME:

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

370

Waskey
Burr
Thayer
Moon

OCT 1 1951

A.E.C.

Mr. Fred Arrowood
R.F.D. #1,
Waynesville, N. C.

Re: DMA-1875X
Mica

Dear Mr. Arrowood:

Your application is being referred to Mr. Robert A. Laurence, Executive Officer, DMA Field Team, Region VII, Room 13, Post Office Building, Knoxville, Tennessee, for further information.

Sincerely yours,

SIGNED 8.F. 10-1

Tom Lyon, Director
Supply Division

RWASKEY:mp
9-24-51
cc: Field Team, Region VII (2)
DMA Docket File
Mr. Barr

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

OCT 1 1951

Mr. Robert A. Lawrence, Executive Officer
DMA Field Team, Region VII
Room 13, Post Office Bldg.
Knoxville, Tenn.

We attach "Review of Application for Exploration Assistance" [illegible]

Applicant Fred Arrowood

Docket No. DMA 1875X

Commodity Mica

Amount $ 3,508.00

Please expedite the consideration of this application with particular reference to the points raised in the attached "Review".

Very truly yours,

Tom Lyon, Chairman
Coordinating Committee

Not known of Mica

Not included Survey

6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. 1015

Commodity Mica

Total Amount $3508

Govt. Participation 90%

1. Name and Address of Applicant Fred Arrowood
P.O. Box 1 Waynesville, N.C.

2. Location of Property Haywood County, N.C.

3. Mineral or metal Mica Is it listed in Section 9 of MO-5?

If not, application will be rejected. YES

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good

b) Poor

c) None

d) Don't know—needs field examination Letter Attached

e) Is there an alternative and favorable project?
(If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes, Lease
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? No

Does the lease have sufficient time to run to cover a future

productive period? Check with Applicant & local Forest Svc. office as to status of Application - If lease not issued get the U.S. Bureau of Land Management number assigned

*question numbers are those of MF-103

7. Are subordination agreements necessary? Not needed on Govt. Lands

a) MF-201? However lease copy is needed and if not

b) MF-202 issued application must be held up—

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower Yes

b) Equipment and supplies Yes
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Yes

d) Water (question 13)* Yes

e) Power (question 13)* Yes

Is a field check needed on any of these points? Yes, Particularly c)

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* Yes

Is a field check needed on this point? Yes

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? NO

If not, are there sufficient data given so that you can describe the project? NO If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? NO - Work is not shown on map submitted

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? Yes it would probably qualify

If not, what part of it is? including road work if this is needed

Is this part a worthwhile exploration project? Field Team Decide

d) Are the cost estimates detailed? Fairly well

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? NO If so, attach a draft.

e) Are the cost estimates reasonable? Insufficient data

f) Should more information be requested from applicant? By Team

g) Is a field examination necessary to complete Exhibit A? Yes

11. Exhibit B (question 23-d)*

a) Is it applicable? NO

b) If so, are sufficient data furnished? — If so, attach a draft.

c) Is a field check needed? —

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? Yes

b) Sufficient data? NO If so, attach a draft.

c) Are rents and charges reasonable? Insufficient data

d) Is a field check needed? Yes

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? Yes Preceding Weeks are shown

b) Is the schedule adequate for the work proposed? Appears so

c) Is the schedule excessive for the work proposed? Why full time blacksmith?

d) Are the proposed wages and salaries reasonable? Yes

e) Is a field check needed? Yes

14. Exhibit E (question 23-c)*

a) Is it applicable? NO

b) Sufficient data? —

c) Reasonable? —

d) Field check needed? —

15. In your judgment, can the proposed work be done in the proposed time? Yes

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? If Exploration appears justified lay out a suitable program with applicant & submit contract data & map

See memo by W R Griffitts

Reviewed by: [illegible]

Date 9/22/57

97692

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

REPLY REFER TO:
G-MD-WRG

September 20, 1951

Memorandum

To: Robert Waskey, Defense Minerals Administration

From: W. R. Griffitts, U. S. Geological Survey

Subject: Application DMA-1875 from Fred Arrowood for mica exploration at the Little East Fork Mica Mine.

According to a file report by E. Wm. Heinrich, dated April 21, 1944, the chief difficulty in operating the mine is the inaccessibility. Because of the time needed in traveling from Waynesville, the usual working day was seven hours. No work was done in wet weather. About 200 pounds of crude mica were recovered in an average working day. This yielded about 5% of trimmed sheet and untrimmed punch mica, which is a little below the average for the district. The quality was fair, 6% No. 1 and 68% No. 2. Only the deposit mined in Adits Y and Z was thought to be of importance.

The application should be referred to the field team to determine:

1. Whether a road can economically be maintained that would permit regular operation of the mine for normal working days regardless of weather. Also, is deposit likely to be good enough to justify cost of road.

2. If road is impractical, can miners be housed at mine.

3. Whether or not proposed work will be in the main deposit, exposed in Adits X and Y.

4. Whether the possible reserves in the main deposit will justify the expenditures asked.

W R Griffitts

W. R. Griffitts

FILE COPY
SURNAME:

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

July 27, 1951

A. E. C.

Mr. Fred Arrowood
R. F. D. #1
Waynesville, North Carolina

Subject: DMA-1875
Re: Exploration Loan -
Little East Fork Mica

My dear Mr. Arrowood:

Receipt is acknowledged of your application and attachments of July 19, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1875 and referred to Mr. James A. Barr, Chief, Industrial Minerals Branch on July 26, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1875.

Sincerely yours,

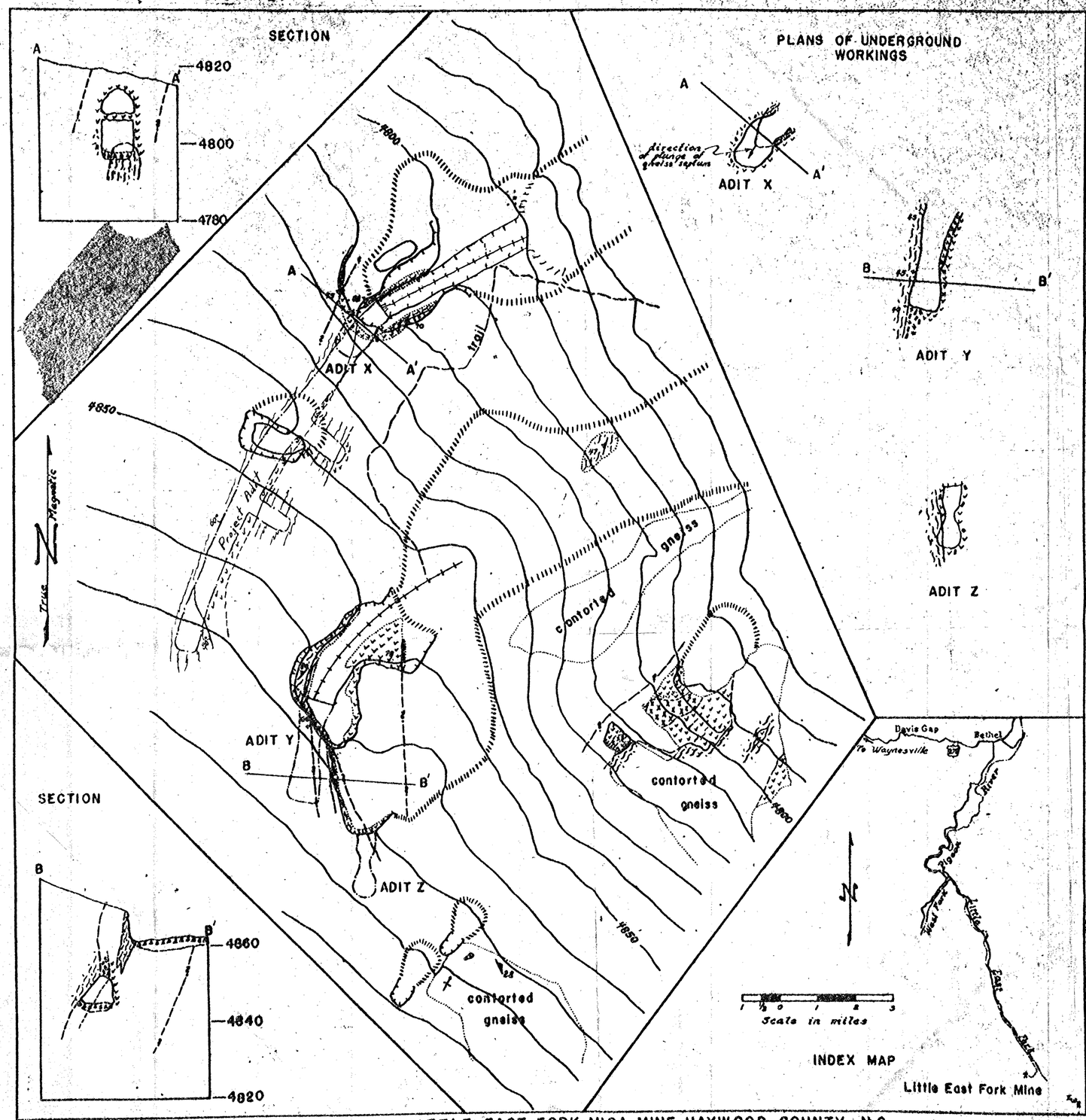
LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

L. F. Strobel:jc
cc: Strobel
File
Barr
Lyon

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STRATEGIC MINERALS INVESTIGATIONS
PRELIMINARY MAPS



EXPLANATION

- Quartz
- Quartz-feldspar pegmatite
- Scrap mica
- Sheet mica
- Biotite gneiss
- Backfill
- Attitude of observed contact
- Inferred contact
- Attitude of foliation
- Attitude of minor fold
- Dump outline
- Outcrop outline
- Open cut
- Underground workings

Plane-table survey
Contour interval 10 feet
Datum from U.S.G.S. Pisgah Quadrangle

Prepared in cooperation with the North Carolina Department of Conservation and Development

Geology and topography by
M.R. Klepper, E. Wm. Heinrich, L.O. Pray
April, 1944

LITTLE EAST FORK MICA MINE, HAYWOOD COUNTY, N.C.

20 10 0 20 40
SCALE IN FEET