DMEA 3689

DOCKET INDEX

ACTION DOCUMENTS

1	APPLICATION	DATE RECEIVED	2/18/55
2	CONTRACT CONTRACT, ASSIGNMENT	DATE	4/28/55 5-1-56
3	TERMINATION AGREEMENT	DATE	
4	CERTIFICATION	DATE	
5	AUDIT REPORT	DATE	
6	AMENDMENTS - NUMBERS 1	DATE	11-10-55

Docket copy

Appd. Sol. Off.

RECEIVED
MAY 7 - 1956

Chapman
Selfridge
Hyman

ASSIGNMENT OF CONTRACT

WHEREAS, Zeb Angel (hereinafter called the "Assignor"), entered into Exploration Project Contract Idm-2790 (Docket No. DOKA-1689), dated April 28, 1955 (hereinafter called the "Contract"); and

WHEREAS, Carolina Mining Company, a partnership composed of William Binnes and Roy H. Fouts, whose address is P. O. Box 314, Franklin, North Carolina (hereinafter called the "Assignee"), has acquired the Assignor's interest in the land which is the subject of the Contract and the Assignee desires to complete the work under the Contract;

NOW THEREFORE, effective April 10, 1956, the Assignor, subject to acceptance by the Assignee and consent of the Government, in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration received from the Assignee, does hereby assign, transfer, and convey to the Assignee all of his right, title, and interest in the Contract: Provided, That the Government shall make payment to the Assignor for the work performed prior to said effective date, and upon payment thereof the Government shall be and is hereby released by the Assignor from all claims under the Contract.

The Assignor consents to all future amendments and assignments of the Contract and waives notice thereof.

Dated this 1st day of May, 1956.

ZEB ANGEL

Zeb Angel [Seal]

ASSIGNEE'S ACCEPTANCE

The Assignee hereby accepts the above Assignment and agrees to be bound by all the terms, provisions, and conditions of the Contract. The Assignee expressly assumes and agrees to pay to the Government any royalty that may have accrued and remains unpaid on the

effective date of the Assignment and that may accrue thereafter under the provisions of the Contract.

Dated this 1 day of May, 1956.

CAROLINA MINING COMPANY

By William Dinsse [Seal]
William Dinsse (Partner)

By Roy E. Foote [Seal]
Roy E. Foote (Partner)

GOVERNMENT'S CONSENT

The Government, this 26th day of April, 1956, hereby consents to the above Assignment without releasing the Assignor from any of the terms, provisions, and conditions of the Contract.

THE UNITED STATES OF AMERICA

By C. O. Mittendorf
Administrator, Defense Minerals
Exploration Administration

DOCKET COPY

EXPLORATION PROJECT CONTRACT

DMEA-3689, Idm-E790 (mica)

ZEB ANGEL, Franklin, N. C.

AMENDMENT NO. 1

Contract Idm-E790, Docket No. DMEA-3689, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration and ZEB ANGEL, dated April 28, 1955 is hereby amended as follows:

1. Article 3 is amended to read,"..... and shall bring the project to completion with a period of twelve (12) months from the date of the contract instead of seven (7) months as first written in the original contract.

November 10, 1955

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 cost which the Government may be obligated to pay, under the provisions of Article 5 of the subject contract.

Zeb Angel

Zeb Angel, Operator

Robert A. Laurence

Robert A. Laurence,
EXECUTIVE OFFICER
DMEA REGION V

RECEIVED
NOV 23 1955

Docket copy

Department of the Interior
Defense Minerals Administration
RECEIVED
MAY 6 - 1955

MF-200A
(Revised June 1954)

Docket No. DMEA - 3689

Commodity Mica

Contract No. Idm-E 790

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXPLORATION PROJECT CONTRACT[1]
(Short Form)

It is agreed this 28th day of April, 1955, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Zeb Angel, whose mailing address is Box 91 Franklin, North Carolina, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and .....

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

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of North Carolina, County of Macon, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] lease, [7] --recorded in Book H-6, page 21, official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: Owner's Consent to Lien.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of mica. The work to be performed is described in Exhibit "A." The Operator on or before June 20, 1955 shall commence the work, and on or before November 15, 1955 (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $5,276.00. The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $3,957.00: *Provided,* That until the Operator has rendered to the Government his final report, 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 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

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

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

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

ARTICLE 7. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 6) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

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

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

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

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

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

ARTICLE 8. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 8 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 9. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 10. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 11. *Changes and added provisions.*—

Executed in sextuplicate the day and year first above written.

ZEP ANGEL

(Operator)

By Zeb Angel

THE UNITED STATES OF AMERICA

By 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—70618-1

EXPLORATION PROJECT CONTRACT
ZEB ANGEL
DOCKET NO. DMEA-3689

ANNEX I

The land referred to in Article 2 of the contract form was leased for a period of 5 years, renewable, by Herman Dean and wife, Alma, to the Operator by an instrument recorded February 11, 1955. The land is described as follows:

BEGINNING at a stake situated N. 40 deg. 6½ poles from a black oak, corner on a ridge the same being a corner of W. D. Simpson tract, and runs N. 40 deg. 12' E. 57.24 poles to a pile of stones; then N. 80 deg. 56' E. 51 poles to a maple; then N. 2 deg. 52' E 188 poles to a stake thence N. 88 deg. 16' W. 48.6 to a stake at branch; thence with branch as follows: S 77 deg. 48 min. W 30.88 poles to a stake; thence S 65 deg. 19' W 4.24 poles to a stake; South 52 deg. 07' W. 15.32 poles to a stake; S. 61 deg. 21' W. 28.84 poles to a stake in the branch; thence S. 81 deg. 9' W 6.08 poles to a stake on bank of Highway No. 285, thence with Highway South 35 deg. 35' W. 8 poles to a stake at the NW corner of Simpson tract; thence S 69 deg. 30' E 46.4 poles to the Beginning, containing 15 acres.

EXPLORATION PROJECT CONTRACT
ZEB ANGEL
DOCKET NO. DMEA-3689

EXHIBIT "A"

Description of the Work

The work shall be performed in two successive stages, as follows:

Stage I

With a D-4 bulldozer or equivalent, cut two trenches, each 75 feet by 12 feet by 10 feet, to expose the full thickness and determine the lateral extent of the pegmatite.

One crosscutting trench may be located at either of the two locations shown on the map entitled "Sketch of Zeb Angel Mine, Macon County, N. C. DMEA-3689 (mica)," attached hereto and made a part hereof. The Government shall approve in advance the location of the second trench.

No trenching work may be performed within 50 feet of a property line, unless approved in writing in advance by the Government.

Stage II

The Operator shall perform such of the work set forth under Stage II as is approved in advance by the Government.

1. Construct:

(a) A toolhouse, minimum dimensions 8 feet by 10 feet by 7 feet.

(b) A powder storage magazine, minimum dimensions 4 feet by 3 feet by 2½ feet.

(c) An exploder storage magazine, minimum dimensions 2 feet by 1½ feet by 1 foot.

The toolhouse may be unfloored; shall have protective roof covering; and shall be equipped with lock and key.

The powder and exploder magazines shall be boxed on all sides; shall be made from 2-inch hardwood or 3-inch softwood; and shall be braced at the corners. No metal shall be exposed, and the lids shall be securely locked with the equivalent of a 5-tumbler jarproof lock.

2. (a) At a point agreed upon between the Government and the Operator, sink a 60-foot shaft on the pegmatite. The shaft shall have minimum cross-sectional dimensions of 5 feet by 7 feet in the clear of timber.

(b) From a point 5 feet above the bottom of the shaft, drive 80 feet of drifts on the pegmatite having minimum cross-sectional dimensions of 5 feet by 7 feet in the clear of timber.

The shaft may be extended below the 60-foot depth if, in the opinion of the Government, conditions warrant it, by substituting a portion of the drifting footage for sinking.

All work shall be timbered as necessary.

The location, inclination, direction, and extent of all work are subject to approval of the Government.

Fixed Unit Costs

Stage I

Bulldoze 20 hours @ $10.00/hr.	$ 200.00

Stage II

Construct:

Toolhouse 1/	76.00
Powder storage magazine 1/	26.00
Exploder storage magazine 1/	14.00

1/ The completed work constitutes the unit.

Sink 60 feet of shaft @ $40.00/ft.	$2,400.00	
Drive 80 feet of drifts @ $32.00/ft.	2,560.00	
Estimated Total Cost of Project		$5,276.00
Government Participation @ 75%		$3,957.00

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 18 1955

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of North Carolina, County of Chowan, described as follows:1/ Beginning at a stake situated N. 40 deg. 03 poles from a black oak, corner on a ridge the corneking a corner of V. D. Simpson tract, and runs N. 60 deg. 12' E. 57.24 poles to a pile of stones; then N. 80 deg. 56' E. 52 poles to a maple; then N. 2 deg. 52' E 100 poles to a stake thence E. 83 deg 10' W 40.6 to a stake at branch; thence with branch as follows: S 77 deg 44 min N 30.00 poles to a stake; thence S 65 deg 19' W 4.24 poles to a stake; South 52 deg. 07' W. 15.32 poles to a stake; S. 61 deg. 21' W. 20.04 poles to a stake in the branch; thence S. 81 deg. 9' W 6.03 poles to a stake on bank of Highway No. 258, thence with Highway South 35 deg. 35' W. 0 poles to a stake at the NW corner of Simpson tract; thence S 69 deg. 30' E. [illegible] poles to the beginning, containing [illegible] acres.

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

2/ Zob Angel, Box 91, Lewiston, N. C.

hereinafter called the "Operator", and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract or any amendment thereof shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract or any amendment thereof there is hereby granted to the Government a lien upon the land above referred to and upon any production of minerals therefrom until said royalty is fully paid or ten years have elapsed from the date of the contract, whichever occurs first.

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

(OVER)

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

4. Changes and added provisions In paragraph 2 the words "the period fixed in the contract or any amendment thereof has" are substituted for "ten years have."

Dated this 19th day of February, 1956.

Herman Dean [Seal]

Alma Dean [Seal]

[Seal]

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/24	Anderson	600
4/24	Houk	600
4-24	Chambers	800
4/26	Selbridge	130
"	Johnson	110
		~~100~~
		220

600

APR 26 1957

Carolina Mining Company
P. O. Box 314
Franklin, North Carolina

Re: Docket No. 3689-Mica
Carolina Mining Company (Assignee) Williams
Zeb Angel (Assignor) Lamb
Zeb Angel Mine
Macon County, North Carolina
Contract No. Idm-E790

Gentlemen:

Reference is made to your completed exploration contract with the Government.

We sincerely regret that the work performed did not result in a certification of discovery or development under the provisions of the contract. In the absence of such certification, the Government retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this project. Your attention, however, is called to the provisions of the contract which require the operator to keep and preserve certain records for the period indicated.

Your interest in the DMEA exploration program and participation therein are fully appreciated.

Sincerely yours,

Frank E. Johnson

ACTING Administrator

LGHouk: rsi 4/22/57
Copy to: Admr. R. File
Mr. Chambers
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Operating Committee

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/24	Anderson	600
4/24	Houk	600
4-24	Chambers	800
4/26	Selfridge	130
"	Johnson	110
		~~100~~
4/29	C	220
		225

600

APR 26 1957

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region V
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Re: Docket No. 3689-Mica
Carolina Mining Company (Assignee)
Zeb Angel (Assignor)
Zeb Angel Mine
Macon County, North Carolina
Contract No. Idm-E790

Dear Mr. Laurence:

Enclosed is a letter to be forwarded to the signers of the Owner's Consent to Lien under the subject contract.

Kindly complete the address and forward, retaining your copies and returning our copies.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

Frank D. Lamb
Member, Bureau of Mines

W. P. Williams
Member, Geological Survey

WCAnderson:rsi 4/24/57
Copy to: Admr. R. File
Mr. Chambers
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Operating Committee

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/24	Anderson	600
4/24	Houk	600
4-24	Chambers	800
4/26	Selfridge	130
		~~110~~
		~~100~~
5/9	C	220
		225

Williams
Lamb

APR 26 1957

600

Mr. and Mrs. Herman Dean

P. O. Box 96
Franklin, North Carolina

Re: Docket No. DMEA-3689-Mica
Carolina Mining Company (Assignee)
Zeb Angel (Assignor)
Zeb Angel Mine
Macon County, North Carolina
Contract No. Idm-E790

Dear Mr. and Mrs. Dean:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the above-cited contract.

This correspondence relates to the Owner's Consent to Lien signed by you on February 15, 1955.

Sincerely yours,

Frank E. Johnson (for)

ACTING Administrator

Enclosures

WCAnderson:rsi 4/23/57
Copy to: Admr. R. File
Mr. Chambers
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Operating Committee
Mr. Houk

86

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

April 23,1957

Project Summary Report

By: W. C. Anderson: WCA

1. Docket No. DMEA-3689 - Mica
Contract No. Idm-E790
Zeb Angel Mine
Macon County, North Carolina

Operator: Carolina Mining Company (Assignee)
P. O. Box 314
Franklin, North Carolina

Operator's property rights: Five year lease by Herman Dean and wife, Alma Dean, consisting of fifteen acres. witnessed February 11, 1955.
Owner's Consent to Lien dated February 15, 1955.
Assignment dated May 1, 1956

Application: Dated February 15, 1955

Work proposed by applicant;

60 feet of shaft @ $50.00 per foot	$3,000.00
75 feet of tunnel @ $35.00 per foot	2,625.00
Toolhouse	100.00
Powderhouse	50.00
Total requested	$5,775.00

Form MF-200A (June 1954)

2. Contract/dated April 28, 1955

Work authorized:

Stage I	
Bulldoze 20 hours @ $10.00/hr.	$200.00
Stage II	
Construct: Toolhouse, Powder Storage Magazine, Exploder Storage Magazine	116.00
Sink 60 feet of shaft @ $40.00/ft.	2,400.00
Drive 80 feet of drifts @ $32.00/ft.	2,560.00
Estimated total cost of project	$5,276.00
Government participation @ 75%	$3,957.00

Amemdments: No. 1, 11/10/55,
extended the completion date from November 15, 1955 to April 28, 1956

No. 2, April 27, 1956, extended the completion date from April 28, 1956 to June 28, 1956.

Work completed:

Stage I	
20 hours bulldozing	$200.00
Stage II	
Construction: Toolhouse, Powder and Exploder Magazines	116.00
53 ft. shaft sinking @ $40.00/ft.	2,120.00
80 ft. drifting	2,560.00
Total accepted cost	$4,996.00
Government participation	$3,747.00

Work began May 23, 1955 and was completed May 31, 1956.
Field Team Final Report received July 5, 1956.
Operator's Final Report received June 1, 1956.
Estimated value of production $42.00, on which no royalty was paid.
No equipment was purchased under the contract.

3. Audit: Report of Review dated June 18, 1956

Accepted cost	$4,996.00
Government participation @ 75%	$3,747.00

4. Certification of discovery or development: None issued.

5. Comments:

How conducted: All of the work in which the Government participated was accepted.

Operation: Fair to good

Engineering: Good

Geological Premise: The premise that the northwest extension of an already explored pegmatite would contain commercial quantities of strategic mica was wrong.

Geological criteria upon which work was based:

1. Pegmatite - 5 to 20 feet thick, quartz core up to 12 feet thick, decomposed and at least 600 feet long.
2. Mica - strategic quality, some flat and clear, most do not exceed 3 inches across, some are up to 8 inches wide.

Criteria developed during project:

1. Pegmatite - zoned, concordant, varying in thickness from a few inches to more than 20 feet, composed of perthite, plagioclase, massive quartz and very little muscovite. Country rock is semi-weathered mica gneiss.
2. Mica - sparse occurrence, ruby, stained, cracked and bent.

Future possibilities: Since no significant reserves are either indicated or inferred, this mine has no further possibilities.

Recommedations

The Nonmetallic Minerals Division and the commodity members of the Geological Survey and Bureau of Mines concur in the Field Team's recommendation that the mine not be certified as a discovery.

IN REPLY REFER TO:

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

RECEIVED
OCT 22 1956

October 19, 1956

Re: DMEA 3689, Idm E-790
Carolina Mining Co.
Zeb Angel Mine
Macon Co., North Carolina
$5,276 - Mica

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team final report.

The contract authorized the expenditure of $5,276 on a two-stage work program consisting of bulldozing, shaft sinking and drifting. The work completed consists of two trenches, 53 feet of shaft and 80 feet of drifting. The cost was $4,996. About 400 pounds of run-of-mine block mica, of an estimated value of $42, was recovered.

As no strategic mica was discovered, the examiners and the Field Team recommend that no certification be made.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

Cw

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

July 18, 1956

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

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

Subject: DMEA-3689 (mica)

Applicant: Carolina Mining Co. (R. Fouts & A. W. Reid)

Name and Location of Property: Zeb Angel Mine, Macon County, N. C.

Contract Number: Idm-E 790

Date of Field Team Report: 7/3/56

Date Rec'd. by Br. of Ceramic & Fertilizer Materials: 7/9/56

Field Team Recommendation: Recommend no certification of discovery.

Comments:

1. Although a small quantity of mica was produced during the contract sufficient work has been done to indicate the pegmatite is not suitable for producing large quantities of strategic mica.

2. Expenditures -

Total approved	$5,276.00
Total cost	4,996.00
Gov't. share of the cost	3,747.00
Value of production during operation	42.00 (est.)

Recommendation:

I concur with the field team's recommendation.

W F Dietrich

W. F. Dietrich

RECEIVED
JUL 1 0 1956

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

July 3, 1956

Memorandum

To: Operating Committee, DMEA, Washington, D. C.

From: Field Team, DMEA, Region V, Knoxville, Tennessee

Subject: Final Report, DMEA-3689, Idm-E790 (Mica)
Carolina Mining Co., assignee
Zeb Angel Mine, Macon County, North Carolina

Enclosed are four copies of the subject report.

No mineable reserves were discovered or developed although there was a small production of mica during the contract.

We do not recommend certification of discovery.

Reviewed by
DMEA OPERATING COMMITTEE
7-9-56
(date)

Robert A. Laurence
Robert A. Laurence
Executive Officer

V. J. Lynch
V. J. Lynch, Member
Bureau of Mines

Enclosures 4

RECEIVED
JUL 5 - 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT BY FIELD TEAM, REGION V

FINAL REPORT

On

DMEA-3689, ZEB ANGEL (mica) Idm-E790
Macon County, North Carolina

By

A. R. Taylor, Geologist
U. S. Geological Survey

and

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

Reviewed by
DMEA OPERATING COMMITTEE
7-9-56
(date)

RECEIVED
JUL 5 - 1956

July 3, 1956

FINAL REPORT
On

DMEA-3689, ZEB ANGEL MINE (mica)
Macon County, North Carolina

Operator: Zeb Angel, Franklin, North Carolina

Summary

Work has been completed without making a significant discovery of muscovite. No reserves are indicated or inferred. Eighty feet of timbered drift was driven in weathered material from the 50-foot level of a two-compartment vertical 53-foot shaft. It is recommended that no certificate of discovery be issued.

Introduction

Location

The Zeb Angel Mine, consisting of many pits, cuts and shafts, is 2.5 airline miles N 35° E of Franklin, Macon County, N. C., and a few hundred yards east of Dean.

History and Workings

The mine has been worked intermittently since 1890, by Zeb Angel, Herman Dean and A. W. Reid, and most recently by the Carolina Mining Co., (Roy Fouts and William Dinnes, Box 314, Franklin, N. C.). T he Carolina Mining Company assumed the responsibility of completing the present contract because of the illness of the original operator, Mr. Zeb Angel.

Operator

Mr. Zeb Angel, a competent miner of many years, conducted an efficient project before his illness in the fall of 1955 and his automobile accident in the spring of 1956. His successor, the Carolina Mining Company

is to be commended for carrying through to completion a difficult job in the heavy ground encountered. They complied fully with the field examinters' instructions and cooperated in every possible way. Mr. Fouts has removed his equipment and plans no further work at the mine.

Geology

Work Under Contract

Work at the Zeb Angel Mine, consisting of two stages began May 23, 1955, and was completed on May 31, 1956. The final inspection was made June 5, 1956.

Stage I consisted of two bulldozed trenches; one was crosscutting the pegmatite, and was 75' x 12' x 6' deep, trending northeast-southwest, and the other to the southeast, was made along strike (northwest-southeast) and was 80' x 22' x 15' deep.

A toolhouse, powder magazine and exploder magazine were constructed under Stage II. A vertical, timbered, 2-compartment 5-ft by 7-ft shaft was sunk to a depth of 53 ft. A timbered, 5-ft by 7 ft drift was driven 80 ft to the southeast from the 50-ft shaft level generally between the pegmatite hanging wall and quartz core. It extends (from the shaft) 25 ft S 30° E, 35 ft S 62° E, 10 ft E, thence 10 ft S 55° E. Heavy ground was encountered from the 45-ft station in the drift to the 80 ft station. The drift had to be lagged solid overhead and in places on the sides with oak stulls, set on 6 ft centers. In some places the overhead stoped itself upward to 30 feet.

Pegmatite and Country Rock

The zoned, concordant pegmatite has a strike of N 65°W and dips vertically. The trenching further exposed the pegmatite, which is zoned with a 2 to 6-ft quartz core surrounded by weathered feldspar, and is 19 ft thick. Its composition is perthite, plagioclase, massive quartz, and muscovite, with the plagioclase and muscovite being more abundant on the southeastern end of the exposure.

At the 27-ft shaft level about 3 ft of pegmatite was exposed on the northeastern side of the shaft. T he strike and dip of the pegmatite at that point is N 40° W and 65° NE. The country rock at that point was semi-weathered mica gneiss.

The 40- ft level shows the body, with unknown thickness, on the southwestern side of the shaft.

Both the strike and dip of the pegmatite changed and at the 50 ft level was N 70° E and 70° NW. The pegmatite at that level contained a 2 to 3 ft quartz core and was surrounded by essentially hard biotite gneiss. Some medium-sized muscovite crystals exist adjacent to the core, but are rather sparse.

At the 45 ft station in the drift the pegmatite narrowed to about 6 inches in the roof, but was thicker on the floor. This material became stringers and continued for 20 ft to the 67-ft point in the drift where a thick pegmatite was encountered on the north wall.

The last work was done in that pegmatite, but no muscovite was recovered. This body is perhaps a parallel pegmatite that may or may not be related somewhere back toward the shaft. It was followed only on the

southern side of a quartz core so the actual thickness is not known but can be inferred to be about 15 ft. The 7 ft thick core was flanked on the southern side by a 4-ft zone of fine-grained kaolinized feldspar which is completely barren of muscovite.

Slickensides in the biotite gneiss exist intermittently throughout the drift with no definite orientation.

Muscovite

About 400 pounds of "mine-run block" ruby muscovite (stained, cracked and bent), was recovered under the contract. Of that amount, 200 pounds was recovered during the bulldozing, and the rest, either in the shaft or from the first 25 feet of the drift. Generally the quality is extremely poor.

The 400 pounds of block will probably (at 1% recovery) sheet 4 pounds of trimmed muscovite of stained No. 5 1/2 and No.6, which at $7.55 per pound may be worth approximately $30.00. The 396 pounds remaining may be 96 pounds of punch and 300 pounds of scrap.

The punch is estimated to be worth at 8¢ per lb., about $7.68; and the scrap @ 1 1/2 ¢ per lb., about $4.50.

The total value of the 400 pounds of block is estimated to be $42.00.

No reserves of any significance are either indicated or inferred.

Conclusions

Only about 400 pounds of bent, and stained "mine-run block" muscovite, worth approximately $42.00 was recovered during trenching, shafting (53 ft) and from an 80-ft drift. The work performed did not result in a discovery of strategic muscovite. It is therefore recommended that the mine not be certified as a discovery.

Expenditures

(a)	Total approved	$5,276.00
(b)	Total cost of project	4,996.00
(c)	Government's share of cost	3,747.00
(d)	Government's share unexpended	210.00
(e)	Value of production (estimated)	42.00
(f)	Royalty	None

July 3, 1956.

A. R. Taylor, Geologist
Geological Survey

L. E. Shirley, Mining Engineer
Bureau of Mines

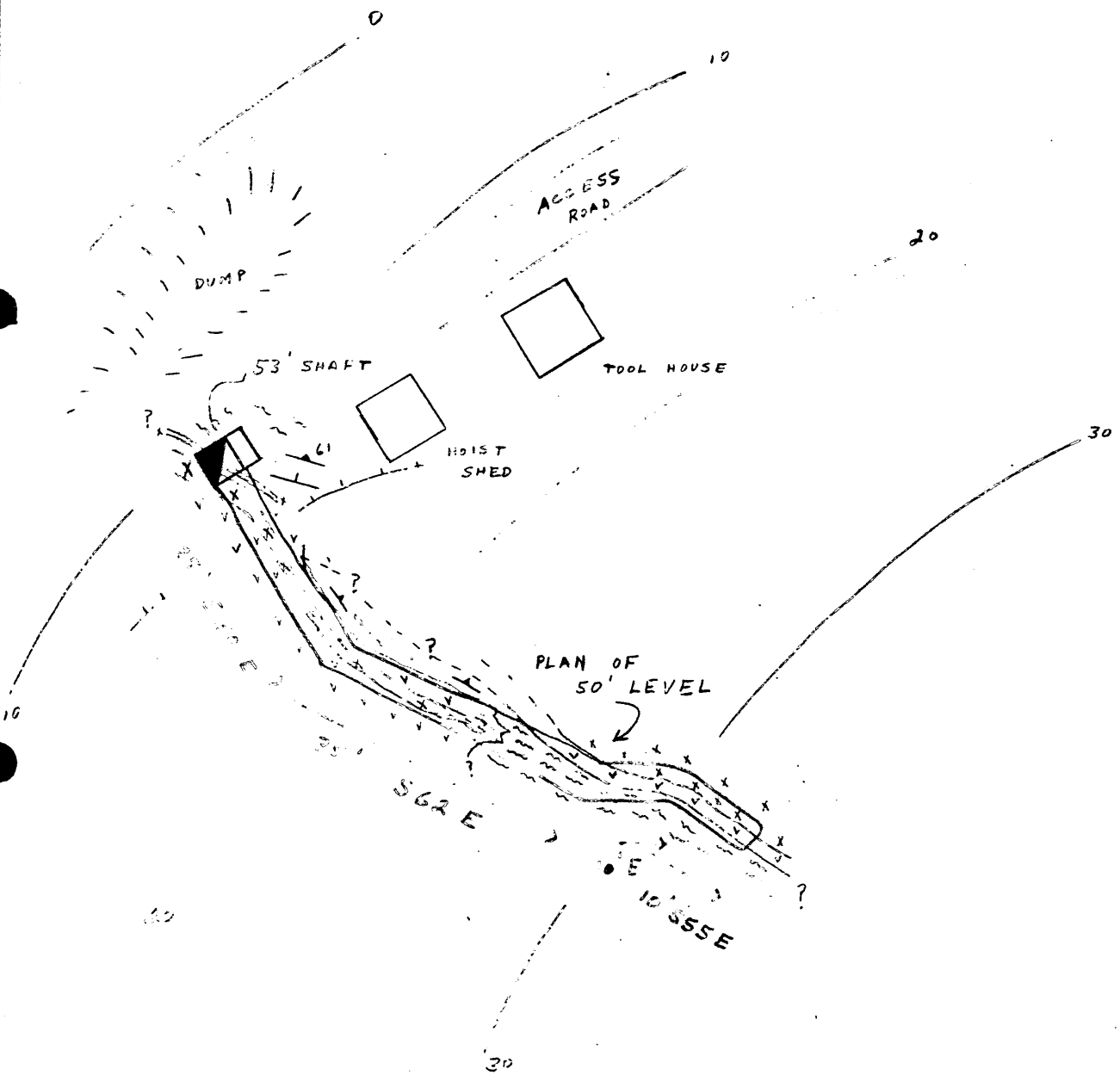
z

ZEB ANGEL MINE

DMEA -3689 (MICA)

MACON CO., N.C.

7-2-56



N

0 20 40 FEET

SCALE

BIOTITE GNEISS

PEGMATITE

QUARTZ CORE

STRIKE + DIP OF PEG.

STRIKE + DIP OF GNEISS FOLIATION

SHAFT

ART

7

Talbert

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

JUN 25 1956

Mr. Robert A. Lawrence
Executive Officer
DMEA Field Team, Region V
Room 14, Post Office Building
Knoxville 2, Tennessee

Dear Mr. Lawrence:

Enclosed are the original and two copies of Reports of Review covering the following completed or terminated Exploration Project Contracts:

Contract No.	Docket No.	Operator
Idm-E790	DMEA-3689	Zeb Angel, and his assignee, Carolina Mining Company
Idm-E852	DMEA-3825	Paul Freeman
Idm-E925	DMEA-4055	Joe C. Vance

If you concur with the facts stated therein, the original and one copy of each Report of Review should be forwarded to the Certifying Officer and one copy of each should be retained in your files. If, for any reason, a Report of Review does not have your concurrence please return all copies thereof to this Division.

Copies of Field Team reports received in this office have provided a means of verification for the work performed under unit costs provisions of the contracts.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

Enclosures

EDTalbert/ama
June 25, 1956

Copy to: Docket - DMEA-3689
Admr. Reading File
Helen Miller
Mr. Chambers

R.C.L.

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

June 12, 1956

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Amendment No. 2 - Docket No. 3689-mica
Carolina Mining Company (Assignee)
Zeb Angel (Assignor)
Zeb Angel Mine
Macon County, North Carolina
Contract No. Idm-E790

The Nonmetallic Minerals Division concurs in the Amendment No. 2 to the subject contract as written and executed in the field. This Amendment changes the completion date from April 28, 1956 to June 28, 1956, which is fourteen months from the date of the contract.

Amendment No. 2 is necessary because of the delay in finding an Assignee to complete the work.

James Hopkins
Nonmetallic Minerals Division

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

RECEIVED
JUN - 8 1956

June 6, 1956

Memorandum

To: Operating Committee, DMEA, Washington, D. C.

From: Executive Officer, DMEA Field Team, Region V

Subject: Amendment No. 2 - Contract Idm-E790, Docket No. DMEA-3689
Roy H.Fouts and William Dinnes, Assignees
d/b/a Carolina Mining Company (Mica)
Zeb Angel Mine, Macon County, North Carolina

Transmitted are the original and two copies of the subject amendment. The usual distribution of the other copies has been made by this office.

Robert A. Laurence

Robert A. Laurence

Enclosures 3

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

RECEIVED
JUN - 8 1956

June 6, 1956

Memorandum

To: Operating Committee, DMEA, Washington, D. C.

From: Executive Officer, DMEA Field Team, Region V

Subject: Amendment No. 2 - Contract Idm-E790, Docket No. DMEA-3689
Roy H.Fouts and William Dinnes, Assignees
d/b/a/Carolina Mining Company (Mica)
Zeb Angel Mine, Macon County, North Carolina

Transmitted are the original and two copies of the subject amendment. The usual distribution of the other copies has been made by this office.

Robert A. Laurence

mg
Enclosures 3
cc - Operating Committee (3)
Mr. V. J . Lynch
Finance Office
Mr. L. E. Shirley
Files

Box Copy

EXPLORATION PROJECT CONTRACT

DMEA-3689, Idm-E790 (mica)

Roy H. Fouts and William Dinnes, Assignees

AMENDMENT No.2

Contract Idm-E790, Docket No. DMEA-3689, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration and Roy H. Fouts and William Dinnes, Assignees d/b/a Carolina Mining Company, dated April 28, 1955, is hereby further amended as follows:

1. Article 3 is amended to read,....." and shall bring the project to completion within a period of fourteen (14) months from the date of the contract instead of twelve (12) months as written in Amendment No. 1.

April 27, 1956

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the agreed unit cost of any item of work.

This amendment is necessary because: Work was not completed due to illness of the Operator, and a delay in finding an Assignee to finish the work. Completion of the Contract is considered to be in the interest of the Government.

CAROLINA MINING COMPANY

By Roy H. Fouts (Partner)

By William Dinnes (Partner)

THE UNITED STATES OF AMERICA

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

2

RECEIVED
JUN 1 5 1956

INTERIM REPORT

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

OPERATOR: Zeb Angel, P. O. Box 91, Franklin, North Carolina

LOCATION: East of Dean and 2½ miles (airline) N. 35° E. of Franklin, Macon Co., N. C.

This contract has been completed without making a sizable or worthwhile discovery of strategic mica. The Field Examiners do not recommend certification because of a lack of sufficient reserves.

Work completed consisted of sinking 53 feet of vertical, 2 compartment cribbed shafts, and driving 80 feet of drift from the 50 foot shaft level. Shaft sinking was begun in pegmatite exposed by Stage I of the contract which consisted of trenching by bulldozer. A toolhouse, a powder magazine, and an exploder magazine were built upon completion of Stage I. The shaft was bottomed in pegmatite, and 80 feet of drift followed a pegmatite striking N70°E and dipping steeply northwest. The last 20 feet of drift followed a large body composed of a massive quartz core at least 7 feet thick flanked by a 4 foot kaolinized feldspar zone, barren of mica. The enclosing country rock was highly weathered and caused considerable trouble from the 45 foot point in the drift to the present face.

The Examiners are of the opinion that this body has been explored thoroughly and additional exploration is not justified. The work was completed satisfactorily after an assignment of the contract was made to the Carolina Mining Company.

Mr. V. J. Lynch, Bureau Member of the Field Team, Region V, accompanied the Examiners on this visit to the mine.

L. E. Shirley

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

A. R. Taylor

A. R. Taylor, Geologist
U. S. Geological Survey

June 5, 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1025 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

RECEIVED
JUN - 4 1956

June 1, 1956

Memorandum

To: Operating Committee, DMEA - Washington

From: Executive Officer, DMEA- Region V - Knoxville, Tenn.

Subject: Operator's Final Report, DMEA-3689, Idm-E790 (mica) Carolina Mining Co., Assignee. Zeb Angel Mine, Macon County, N. C.

Enclosed are four copies of the Operator's final report on the subject contract, which was completed May 31, 1956.

An Amendment extending the time for completion from April 28 to June 28 has been sent to the Operator, and will be forwarded to you when we receive the executed copies.

Please note that the Operator's report states that a 60-foot shaft was sunk, with a drift at about the 55-foot level. This is incorrect. The shaft is 53 feet deep with drift turn-off at the 50-foot level. The shaft had been completed and the drift turned off before the Assignee took over the contract. Only 53 feet of shaft has been paid for.

Robert A. Laurence

Robert A. Laurence

RECEIVED
JUN - 4 1956

CAROLINA MINING COMPANY
P.O. Box 314
Franklin, North Carolina

ENGINEERING AND GEOLOGIC REPORT

Contract No. Idm-E 790
Docket No. DMEA 3689 - Mica

Zeb Angel Mine, Macon County,
North Carolina

May 31, 1956

This contract by and between Zeb Angel and Defense Minerals Exploration Administration, was signed on the 28 April 1955, for the purpose of exploration of mica in the Franklin-Sylva district of North Carolina, known as the Zeb Angel Mine.

On the 1st day of May 1956, this contract was assigned to Carolina M ining Company, a partnership composed of William Dinnes and Roy H. Fouts, who completed said contract under the specification of the office of Mr. Robert A. Laurence, DMEA Region V., Knoxville, Tennessee.

Work was preformed in two successive stages. First stage was to cut two trenches, each 75 feet by 12 feet by 10 feet, which exposed the full thickness and extent of the pegmatite. Trenching was was performed on a designated point agree upon by the operator of said mine and the field team.

The second stage was to construct a toolhouse, 10 feet by 8 feet by 7 feet, unfloored, with protective roof and equipped with lock and key, construct a storage magazine for powder, dimension 4 feet by 3 feet by 2½ feet, construct an exploder storage magazine 2 feet by 1½ feet by 1 foot, and meet such other standards which would please the state inspector of mines.

A 60 foot shaft was put down on the pegmatite. This ahaft, had a cross-sectional dimensions of 5 feet by 7 feet in the clear of timber, with a man-way 2 feet by 7 feet. On or about the 55 foot point an 80 foot drift was drive on such pegmatite as available having cross-sectional dimensions of 5 feet by 7 feet in the clear.

The geological structor looked promising for mica on the surface and continued as the worked progressed, but no worthwhile amount of mica was produced.

Pegmatite was composed of mica schist, quartz, feldspar, and biotite. The country rock was badly weathered and decomposed structor required timbering. Abrupt changes, dip, fractures and gentle-dipping normal fault cut the gneiss, which probable had a bearing on the kind of mica. It was also flanked by a very large Column of quartz near the end of the 80 foot drift.

CAROLINA MINING COMPANY

Roy H. Fouts

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON
ROOM POST OFFICE BLDG.
KNOXVILLE 2, TENN.
June 1, 1956

RECEIVED
JUN - 4 1956

Memorandum

To: Operating Committee, DMEA - Washington

From: Executive Officer, DMEA- Region V - Knoxville, Tenn.

Subject: Operator's Final Report, DMEA-3689, Idm-K790 (mica) Carolina Mining Co., Assignee. Zeb Angel Mine, Macon County, N. C.

Enclosed are four copies of the Operator's final report on the subject contract, which was completed May 31, 1956.

An Amendment extending the time for completion from April 28 to June 28 has been sent to the Operator, and will be forwarded to you when we receive the executed copies.

Please note that the Operator's report states that a 60-foot shaft was sunk, with a drift at about the 55-foot level. This is incorrect. The shaft is 53 feet deep with drift turn-off at the 50-foot level. The shaft had been completed and the drift turned off before the Assignee took over the contract. Only 53 feet of shaft has been paid for.

Robert A. Laurence

RAL/am
cc:
Lynch
Shirley
Files

RECEIVED
JUL 1 - 4 1956

CAROLINA MINING COMPANY
P.O. Box 314
Franklin, North Carolina

ENGINEERING AND GEOLOGIC REPORT

Contract No. Idm-E 790
Docket No. DMEA 3689 - Mica

Zeb Angel Mine, Macon County,
North Carolina

May 31, 1956

This contract by and between Zeb Angel and Defense Minerals Exploration Administration, was signed on the 28 April 1955, for the purpose of exploration of mica in the Franklin-Sylva district of North Carolina, known as the Zeb Angel Mine.

On the 1st day of May 1956, this contract was assigned to Carolina M ining Company, a partnership composed of William Dinnes and Roy H. Fouts, who completed said contract under the specification of the office of Mr. Robert A. Laurence, DMEA Region V., Knoxville, Tennessee.

Work was preformed in two successive stages. First stage was to cut two trenches, each 75 feet by 12 feet by 10 feet, which exposed the full thickness and extent of the pegmatite. Trenching was was performed on a designated point agree upon by the operator of said mine and the field team.

The second stage was to construct a toolhouse, 10 feet by 8 feet by 7 feet, unfloored, with protective roof and equipped with lock and key, construct a storage magazine for powder, dimension 4 feet by 3 feet by 2½ feet, construct an exploder storage magazine 2 feet by 1½ feet by 1 foot, and meet such other standards which would please the state inspector of mines.

A 60 foot shaft was put down on the pegmatite. This ahaft, had a cross-sectional dimensions of 5 feet by 7 feet in the clear of timber, with a man-way 2 feet by 7 feet. On or about the 55 foot point an 80 foot drift was drive on such pegmatite as available having cross-sectional dimensions of 5 feet by 7 feet in the clear.

The geological structor looked promising for mica on the surface and continued as the worked progressed, but no worthwhile amount of mica was produced.

Pegmatite was composed of mica schist, quartz, feldspar, and biotite. The country rock was badly weathered and decomposed structor required timbering. Abrupt changes, dip, fractures and gentle-dipping normal fault cut the gneiss, which probable had a bearing on the kind of mica. It was also flanked by a very large Column of quartz near the end of the 80 foot drift.

CAROLINA MINING COMPANY

Roy H. Fouts

INTERIM REPORT

RECEIVED
MAY 31 1956

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

OPERATOR: Zeb Angel, P. O. Box 91, Franklin, North Carolina

LOCATION: East of Dean and 2½ miles (airline) N. 35° E. of Franklin, Macon County, North Carolina

Drifting continues to the northeast on this contract and now totals 67 feet. Considerable heavy ground has persisted for the last 20 feet which has slowed progress considerably. Stringer material has been followed from the 45 foot point in the drift, but thicker pegmatite is evident on the northwest wall near the present face. The Operator was advised to put a test hole in the wall at this point to find out the thickness of the body. If the thickness warrants it, the remaining 13 feet of drift will be driven in this body.

The Operator was cautioned concerning heavy ground and was advised to continue timbering the drift using solid top lagging. Progress on this contract is satisfactory.

L. E. Shirley

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

A. R. Taylor

A. R. Taylor, Geologist
U. S. Geological Survey

May 21, 1956

RECEIVED
MAY 18 1956

INTERIM REPORT

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

Operator: Zeb Angel, P. O. Box 91, Franklin, North Carolina

Location: East of Dean and 2-1/2 miles (airline) N35°E of Franklin, Macon County, North Carolina

Work on this contract has resumed after a short delay awaiting reassignment. Drift work now totals 45 feet from the shaft bottom to the last stulls. An advance of an additional 10 feet beyond this point has been made but water and subsequent heavy ground over the past week-end had filled this 10 foot area with loose material. In the roof area only narrow pegmatite can be observed, but the floor area contains thicker pegmatite on the northwest side of the drift.

The operator was advised to continue the drift in the present direction and to continue timbering, setting stulls on 6 foot centers and using solid top lagging. Progress has been satisfactory on this contract.

L. E. Shirley

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

A. R. Taylor

A. R. Taylor, Geologist
U. S. Geological Survey

May 8, 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1050 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

RECEIVED
MAY 7 - 1956

May 3, 1956

Memorandum

To: Operating Committee, DMEA - Washington

From: Executive Officer, DMEA - Region V - Knoxville, Tenn.

Subject: Assignment of Contract - Idm-E790, DMEA-3689, Zeb Angel, Franklin, N. C.

Transmitted are three signed copies of the subject Assignment of Contract. Distribution of the other copies has been made by this office.

Robert A. Laurence

Robert A. Laurence

DOCKET COPY
Surname:

Hopkins
Houk
Chambers
Selfridge
Hjemson

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

APR 26 1956

Mr. Robert A. Lawrence
Executive Officer, DMEA
Field Team, Region V
Room 13, Post Office Building
Knoxville, 2, Tennessee

Re: Docket No. DMEA-3689-Misc
Zeb Angel
Zeb Angel Mine
Mason County, North Carolina
Contract No. Idm-8790

Dear Mr. Lawrence:

Reference is made to the Field Team memorandum of April 12, 1956, requesting that the necessary papers be prepared for the transfer of the subject exploration contract to the Carolina Mining Company.

We have prepared and enclose the original and six copies of the assignment, acceptance, and consent forms, the last having been signed by the Administrator for the Government, with effective date as shown.

After execution of the assignment, the copies are to be distributed in the usual manner.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Approved:

/s/ Robert W. Geehan (GCS)
Member, Bureau of Mines

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

Enclosures: 7

JHopkins:ms 4/24/56
Copy to: Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Mr. Hopkins
Admr. R. File

R.C.

DOCKET COPY
Surname:

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

Memorandum

To: Mr. Robert Dwyer, Associate Solicitor

From: C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration

Subject: Assignment of Contract - Docket No. DMEA-3689-Mica
Zeb Angel
Zeb Angel Mine
Macon County, North Carolina
Contract No. Idm-E790

Please prepare the necessary assignment acceptance and consent forms for transfer of the subject contract to Carolina Mining Company in accordance with the request of the Field Team in a letter dated April 12, 1956.

This assignment is recommended by the Field Team and concurred in by the Nonmetallic Minerals Division because the Operator has been incapacitated as a result of an auto accident.

C. O. Mittendorf

C. O. Mittendorf,
Administrator

JHopkins:ms 4/16/56
Copy to: Mr. Houk
Mr. Hopkins
Admr. R. File
Docket

RECEIVED
APR 18 1956

INTERIM REPORT

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

Operator: Zeb Angel, P. O. Box 91, Franklin, North Carolina

Location: East of Dean and 2½ miles (airline) N. 35° E. of Franklin, Macon Co., N. C.

No additional drift progress is reportable on this contract. The operator has made arrangements and is in the process of transferring his interest in the mine to the Carolina Mining Co. An official of this company was present at the time of this visit and was instructed that the Government could not participate in the continuance of this project until legal transfer is made and accepted by Washington.

Mr. V. J. Lynch, Bureau of Mines Member of the Field Team, Region V, accompanied the Examiners on this visit to the mine.

L. E. Shirley

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

A. R. Taylor

A. R. Taylor, Geologist
U. S. Geological Survey

April 10, 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

RECEIVED
APR 13 1956

April 12, 1956

Memorandum

TO: Operating Committee, DMEA - Washington

From: Executive Officer, DMEA - Region V - Knoxville, Tenn.

Subject: DMEA-3689, Idm-E790 (mica). Zeb Angel, Franklin, N. C.
Zeb Angel Mine, Macon County, North Carolina

Enclosed are the original and 2 copies of a letter from the Operator requesting an assignment of the subject contract. Recently Mr. Meadows advised us that he does not want to take over the unfinished work from Mr. Angel. Enclosed also are a letter from Carolina Mining Company and a copy of a transfer of the lease to them from Mr. Angel.

I have talked with Mr. Angel recently, and I am reasonably sure that he will be unable to complete the work. Carolina Mining Co., is a competent, reliable company, and Mr. Roy Fouts has done satisfactory work on several DMEA contracts. The Field Team believes it is to the advantage of the Government to assign this contract, and if you agree, you are requested to prepare the necessary assignment, acceptance and consent forms.

Additional time will be needed in order to complete the contract. We will prepare an amendment extending the time after we receive the assignment papers and will submit it to the Assignee for execution along with the assignment forms.

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

RECEIVED

APR 13 1956

CAROLINA MINING COMPANY
P.O. Box 314
Franklin, North Carolina
April 10, 1956

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region V
Knoxville, Tennessee

Dear Mr. Laurence: Zeb Angel - Docket No. DMEA-3689
Idm-E790 - Mica

The enclosed assignment is for your attention and consideration.

If this meets with your approval we would like to have above mentioned contract assigned to Carolina Mining Company.

We will endeaver to try to complete subject in a manner which contract entented for same.

Yours very truly,

CAROLINA MINING COMPANY

By Roy H. Fouts

By William Dinnes

Enclosure - 1 Assignment

RECEIVED
APR 12 1956
U. ...rvey
Geologic Division
Knoxville, Tenn.

RECEIVED
APR 1 1 1956

NORTH CAROLINA
MACON COUNTY

THIS ASSIGNMENT, Made and entered into this the 10th day of April, 1956, by ZEB ANGEL, party of the first part, to CAROLINA MINING COMPANY, party of the second part,

WITNESSETH: That for and in consideration of the sum of One Dollar and other valuable consideration to him in hand paid, receipt of which is hereby acknowledged, the party of the first part does hereby trasfer, set over and assign unto the said party of the second part all his right, title and interest in and to a certain lease executed by Herman Dean and wife Alma Dean to Zeb Angel, dated the _____ day of _____, 1955, and recorded in the office of the Register of Deeds for Macon County, North Carolina, in Deed Book H-6, page 21, and also all the rights and privileges of the said party of the first part in and under an exploration contract between United States of America and Zeb Angel being Docket No. DMEA-3689, Contract No. Idm-E790.

IN TESTIMONY WHEREOF, the party of the first part has hereunto set his hand and affixed his seal the day and year first above written.

Zeb Angel (SEAL)

NORTH CAROLINA
MACON COUNTY

Personally appeared before me this day ZEB ANGEL, who acknowledged the due execution of the foregoing assignment for the purposes therein expressed.

WITNESS my hand and notarial seal, this 10th day of April, 1956.

Lewis Gibson
Notary Public, Macon County, N. C.
My Commission Expires December 22, 1957

RECEIVED
APR 1

Franklin, N. C.
March 6, 1956

Mr. Robert A. Laurance
Room 13 Post Office Building
Knoxville, Tennessee

Re: DMEA-3689
Contract #Idm-E 790
Zeb Angel

Dear Mr. Laurance:

I was in a very bad automobile accident this week and I am of the opinion I will be physically unable to complete the above contract.

I have discussed the matter at length with Mr. H. C. Meadows, Route #3, Franklin, N.C., and have made arrangements with him whereby he has agreed to complete this project if it can be assigned to him by your office.

Therefore, I hereby request that in the interest of the completion of this project that it be assigned at this time to Mr. H. C. Meadows, Route #3, Franklin, N.C. for its early completion. Mr. Meadows has agreed to abide by the terms of the contract and to execute the necessary papers and forms.

It will be appreciated if you will let us hear by return mail in relation to this matter.

Yours very truly,

Zeb Angel

RECEIVED
MAR 7 - 1956
Geologic Division
Knoxville, Tenn.

RECEIVED
APR 9 - 1956

INTERIM REPORT

DMEA-3689, Idm-E970 (mica) ZEB ANGEL

Operator: Zeb Angel, P.O. Box 91, Franklin, North Carolina

Location: 2.5 airline miles N 35° E of Franklin, Macon County, N. C.

Operator is sick, no progress to report.

The drift heading is 37 feet, contract calls for 80 feet.

A. L. Peyton

Inspected: March 29, 1956

A. L. Peyton, Mining Engineer
Bureau of Mines

A. R. Taylor, Geologist
Geological Survey

z

INTERIM REPORT

DMEA-3689, Idm-E970, ZEB ANGEL MINE
(mica)

Operator: Zeb Angel, P.O. Box 91, Franklin, North Carolina

Location: 2.5 airline miles N 35° E of Franklin, Macon County, N. C.

Mine inaccessible, drift under water.

No progress to report.

Inspected: March 16, 1956

A. L. Peyton

A. L. Peyton, Mining Engineer
Bureau of Mines

S. C. Bergman

S. C. Bergman and A. R. Taylor, Geologists
Geological Survey

z

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

RECEIVED
MAR 14 1956

March 12, 1956

Mr. Zeb Angel

Franklin, North Carolina

Re: DMEA-3689, Idm-K790-Mica
Zeb Angel Mine, Macon County, N. C.

Dear Mr. Angel:

Reference is made to your letter of March 6, requesting that Exploration Contract Idm-K790 be assigned to Mr. M. C. Meadows.

Before we can present your request to the Washington office, it will be necessary for us to have a written statement from Mr. Meadows saying that he will accept the assignment of the contract along with the responsibilities connected with it.

As soon as we hear from Mr. Meadows your request for reassignment will be forwarded to our Washington office.

Very truly yours,

V. J. Lynch, Acting
Executive Officer
DMEA Field Team, Region V

VJL/sm
cc:
Opr. Com.-2
Lynch
Files

Shirley

INTERIM REPORT

DMEA-3689, Idm-E970, ZEB ANGEL MINE
(mica)

Operator: Zeb Angel, P.O. Box 91, Franklin, North Carolina

Location: East of Dean and 2 1/2 miles (airline) N 35° E of Franklin, Macon County, North Carolina

No progress since the last visit, mine still inaccessible, drift under water.

Inspected: March 1, 1956

A. L. Peyton

A. L. Peyton, Mining Engineer
Bureau of Mines

A. R. Taylor

A. R. Taylor, Geologist
Geological Survey

z

RECEIVED
FEB 27 1956

INTERIM REPORT

DMEA-3689, Idm-E970, ZEB ANGEL MINE
(mica)

Operator: Zeb Angel, P.O. Box 91, Franklin, N. C.

Location: East of Dean and 2 1/2 miles (airline) N 35° E of Franklin, Macon County, North Carolina

The last measurment was 25 feet of drift taken December 15, 1955. Since that time the drift has been full of water. Efforts to dewater the mine during this visit failed.

Inspected: February 17, 1956

A. L. Peyton

A. L. Peyton, Mining Engineer
Bureau of Mines

S. C. Bergman

S. C. Bergman and A. R. Taylor, Geologists
Geological Survey

z

RECEIVED
DEC 27 1955

INTERIM REPORT

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

Operator: Zeb Angel, P.O. Box 91, Franklin, N. C.

Location: East of Dean and 2 1/2 miles (airline) N. 35° E. of Franklin, Macon County, North Carolina

Drifting continues on this contract and is now at 25 feet. The work is being conducted to the northeast and is following closely the section between the hanging wall contact and a quartz core. The core is best exhibited on the southeast wall and in the roof section of the drift. The biotite gneiss contact strikes N. 70° E and dips 70° NW at the shaft bottom and at a point near the present face which appears to be an inclusion. None of the mica from this last work has been observed, but the Operator reports that it is stained and bent badly. An effort will be made to see all mica recovered on the next trip to the area.

Progress on this contract is satisfactory.

December 15, 1955

L. E. Shirley

L. E. Shirley, Mining Engineer
Bureau of Mines

SCB

S. C. Bergman and A. R. Taylor, Geologists
Geological Survey

z

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

November 30, 1955

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Amendment No. 1 - Docket No. DMEA-3689 - Mica
Zeb Angel
Zeb Angel Mine
Macon County, North Carolina
Contract No. Idm-E790

The Nonmetallic Minerals Division concurs in Amendment No. 1 to the subject contract as written and executed in the Field. This amendment extends the completion date from November 15, 1955, as first written in the original contract to April 28, 1956, which is twelve months from the date of the contract.

Amendment No. 1 is necessary because of a delay in the work due to illness of the Operator.

James Hopkins
Nonmetallic Minerals Division

Rcd. end
DEC 14 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

November 21, 1955

Memorandum

To: Operating Committee, DMEA - Washington

From: Executive Officer, DMEA - Region V

Subject: Amendment No. I - Idm-E790, DMEA-3689, Zeb Angel (mica) N. C.

Transmitted are three signed copies of the subject amendment. The usual distribution of the other copies has been made.

Robert A. Laurence

Robert A. Laurence

RECEIVED
NOV 23 1955

7

INTERIM REPORT

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

OPERATOR: Zeb Angel, P. O. Box 91, Franklin, North Carolina

LOCATION: East of Dean and 2½ miles (airline) N35°E of Franklin, Macon Co., N. C.

Shaft sinking is nearing completion on this contract and is now at 50 feet. The operator was instructed to sink a sump an additional 3 feet as soon as turnoff is complete and it is practical to do so. Turnoff has been made to the northeast, and 6.5 feet of drift have been driven near the hanging wall of a thick pegmatite body that strikes N70°E and dips 70°NW. Material encountered in the drift is pegmatite composed of kaolinized feldspar, a quartz core 2 to 3 feet thick and small, to medium sized crystals of muscovite mica. About 150 pounds of questionable quality mica was observed in the tool house. The operator was advised to continue the drift to the southeast. Recent progress on this contract is satisfactory.

L. E. Shirley by E. L.

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

RECEIVED
NOV 25 1955

S. C. Bergman

S. C. Bergman and A. R. Taylor, Geologists
U. S. Geological Survey

November 17, 1955

INTERIM REPORT

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

OPERATOR: Zeb Angel, P. O. Box 91, Franklin, North Carolina

LOCATION: East of Dean and 2½ miles (airline) N. 35° E. of Franklin, Macon County, North Carolina

Shaft sinking has been resumed after a brief delay caused by the illness of the operator. Total taped depth is 45.5 feet. Recommended timber work in the manway has been accomplished since the last interim report. The bottom contained water and was not examined, but the operator reports that he is continuing to sink in pegmatite. Another visit will be made to this mine in the near future.

L. E. Shirley

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

K. H. Teague S. C. Bergman A. R. Taylor

K. H. Teague, S. C. Bergman, and A. R. Taylor
Geologists
U. S. Geological Survey

November 4, 1955

RECEIVED
NOV 14 1955

INTERIM REPORT

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

OPERATOR: Zeb Angel, P.O. Box 91, Franklin, North Carolina

LOCATION: East of Dean and 2½ miles (airline) N35°E of Franklin, Macon County, N. C.

Vertical shaft sinking continues slowly on this contract and is now at 43 feet. Recent work has been hampered by inability to handle water in the shaft. A pump has been installed during the past week, and sinking has resumed. Pegmatite was observed on the southwest side and in the bottom of the shaft. Mica recovery is scant.

L. E. Shirley

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

K. H. Teague D. H. Amos

K. H. Teague and D. H. Amos, Geologists
U. S. Geological Survey

August 12, 1955

RECEIVED
AUG 23 1955

RECEIVED
AUG - 8 1955

INTERIM REPORT

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

OPERATOR: Zeb Angel, P. O. Box 91, Franklin, North Carolina

LOCATION: East of Dean and 2½ miles (airline) N35°E of Franklin, Macon Co., N. C.

Vertical shaft sinking continues on this contract and is now at 40 feet. Most of the work to date has been in pegmatite, and the present bottom shows pegmatite on the southwest side of the shaft, thickness unknown, and a stringer in the northeast corner. Some mica has been recovered from shafting, but nearly all observed contains "A" structure and is clay and mineral stained. The body is weathered at the present depth. The operator was advised to continue sinking until another visit can be made. Several suggestions were made concerning necessary timber work on the separated partition and ladder ways.

L. E. Shirley

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

K. H. Teague D. H. Amos

K. H. Teague and D. H. Amos, Geologists
U. S. Geological Survey

July 29, 1955

INTERIM REPORT

RECEIVED
JUL 25 1955

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

OPERATOR: Zeb Angel, P. O. Box 91, Franklin, North Carolina

LOCATION: East of Dean and 2½ miles (airline) N. 35° E. of Franklin, Macon County, N. C.

Vertical shaft sinking continues slowly on this contract, and is now at 28 feet. The shaft bottom contained water and could not be examined. The dump material examined did not show a change in material encountered. Recent progress has been hampered by considerable wet weather in the area, and the construction of hoisting facilities at the mine.

The operator was advised to continue sinking until another visit can be made to the mine.

L. E. Shirley

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

K. H. Teague D. H. Amos

K. H. Teague and D. H. Amos, Geologists
U. S. Geological Survey

July 11, 1955

RECEIVED
JUL - 8 1955

INTERIM REPORT

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

Operator: Zeb Angel, P.O. Box 91, Franklin, North Carolina

Location: East of Dean and 2½ miles (airline) N. 35° E. of Franklin, N. C.

Vertical shaft sinking continues on this contract and now totals 27 feet. About 3 feet of pegmatite is exposed in the northeast side of the shaft bottom; the remainder being semi-weathered mica gneiss. The body strikes about N. 40° W. and dips 65° to the northeast. Mica recovered to date has been largely "flat-A" and of rather poor quality.

The Operator was advised to incline the shaft to the northeast in order to sink on the pegmatite.

Progress and the work completed to date are satisfactory.

Date of Inspection: June 29, 1955.

K. H. Teague and D. H. Amos, Geologists
U. S. Geological Survey

z

INTERIM REPORT

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

RECEIVED
JUN 23 1955

Operator: Zeb Angel, P. O. Box 91, Franklin, North Carolina

Location: East of Dean and 2½ miles (airline) N. 35° E. of Franklin, Macon County, N. C.

Shaft sinking is underway on this contract and now totals 14 feet. The entire opening is in pegmatite which is rich in mica. It is badly curved and cracked and much is of value only as scrap. About 400 pounds of "mine-run" have been recovered to date.

The Operator was advised about timbering of the shaft.

Progress and the work completed to date are satisfactory,

Date of Examination: June 13, 1955

K. H. Teague and D. H. Amos, Geologists
U. S. Geological Survey

L. E. Shirley and J. F. O'Neill, Mining Engineers
U. S. Bureau of Mines

g

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

June 7, 1955

RECEIVED
JUN - 9 1955

Mr. Zob Angel
Box 91
Franklin, North Carolina

Re: DMEA-3689 (mica)
Zob Angel Mine, Macon County, N.C.

Dear Mr. Angel:

This will confirm the verbal approval given by Mr. Teague and Mr. Amos on May 30, 1955 to begin work under Stage II of the subject exploration contract.

Very truly yours,

Robert A. Lawrence
EXECUTIVE OFFICER
DMEA REGION V

RAL/xm
cc:
Spr. Con.-2
Shirley
Lynch
Files

RECEIVED
JUN - 9 ..3

INTERIM REPORT

DMEA-3689, Idm-E790 (mica) ZEB ANGEL MINE

RECEIVED
JUN - 9 1955

Operator: Zeb Angel, P.O. Box 91, Franklin, North Carolina

Location: East of Dean and 2 1/2 miles (airline) N. 35° E. of Franklin, Macon County, N. C.

Stage I of this contract has been completed. Two trenches were bulldozed as follows: (1) a crosscutting trench about 75' x 12' x 6' deep trending northeast-southwest, and (2) southeast of this cut one was made along the strike of the pegmatite (northwest-southeast) about 80' x 22' x 15' deep. A zoned vertical pegmatite up to 19 feet thick was exposed by these trenches. It has a quartz core 2-6 feet thick enclosed by a zone of weathered perthite, plagioclase, quartz and muscovite. Plagioclase and muscovite are more abundant on the southeast end of the body.

About 200 pounds of "mine-run" mica of fair quality were recovered from the bulldozing. It is recommended that Stage II of the contract be undertaken.

A shaft site was located about the middle of the cut that was made along the strike of the body.

Date of Examination: May 30, 1955

K. H. Teague and D. H. Amos, Geologists
U. S. Geological Survey

2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1037 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

May 4, 1955

Memorandum

To: Operating Committee, DMEA - Washington

From: Acting Executive Officer, DMEA - Region 5, Knoxville, Tenn.

Subject: Signed Contract- Idm-E790, DMEA-3689, Zeb Angel (mica)

Transmitted are three signed copies of the subject contract signed by the Operator. The usual distribution of the other copies has been made by this office.

V. J. Lynch

V. J. Lynch

DOCKET FILE
Surname:
Hopkins
Houk
Chandler
Selfridge
Johnson

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

APR 2 8 1955

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region V
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Subject: Docket No. DMEA-3689 - Mica
Zeb Angel
Zeb Angel Prospect
Macon County, North Carolina

Dear Mr. Laurence:

Please find herewith the original and five copies of a contract covering the subject exploration project which have been signed by 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. Please explain to the Operator that the contract, when executed, is a firm commitment under the terms of which he is obligated to complete the work outlined at the agreed unit cost. If any part of this contract does not have either your approval or that of the Operator and cannot be amended within your delegated authority, then the original and all copies of the contract are to be returned to this office, together with the proposed changes for consideration.

After execution of the contract, the copies are to be distributed in the usual manner. Copies of memoranda from E. L. Newcomb of the Geological Survey, dated March 16, 1955, and from W. F. Dietrich of the Bureau of Mines, dated March 22, 1955, are enclosed.

Sincerely yours,

George C. Selfridge
by 257

Chairman, Operating Committee

Approved:

/s/ Robert W. Geehan by 257
Member, Bureau of Mines

Thor H. Kiilsgaard by 257
Member, Geological Survey

JHopkins:ad 4/22/55
Copy to: Admr. R. File
Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

Enclosures 10

R.C.H.

Hopkins

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

March 22, 1955

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-3689 (mica)

Applicant: Zeb Angel

Name and Location of Property: Zeb Angel Mine
Macon County, North Carolina

Date of Field Team Report: March 10, 1955

Date Rec'd. by Br. of Ceramic & Fertilizer Materials: March 16, 1955

Field Team Recommendation:

1. Approval of a contract.

Comments:

1. Mica exposed on the mine dump is of strategic quality.
2. Stage II should not be conducted if Stage I is not favorable.
3. Total estimated costs are in the amount of $5,433.

Recommendation:

I concur in the field team's recommendation to approve a contract in the amount of $5,433.

W. F. Dietrich

W. F. Dietrich

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1025 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

April 5, 1955

Memorandum

To: Operating Committee, DMEA - Washington

From: Field Team, DMEA - Region V - Knoxville, Tennessee

Subject: DMEA-3689 (mica) Zeb Angel, applicant. Zeb Angel Prospect
Macon County, N. C.

Reference is made to your letter of March 25. The subject application was discussed with Mr. Houk and Mr. Kiilsgaard.

We are agreeable to extending the shaft below 60 feet, if conditions at that depth warrant, but we believe the contract should be sufficiently flexible to provide at least 60 feet of level work, without the delays attendant to approval of an amendment, if the pegmatite exposed in the workings justifies it.

Also, we agree that the locations of the trenches should be flexible, but at least the first should be a cross-cutting trench. This is not primarily to locate the shaft site, but rather to expose the full thickness of the pegmatite and obtain data on its zoning and structural relations. The shaft, might well be located away from the trench. Trenching by bulldozer along the edge of the quartz core would be difficult and might require some hand work. We doubt that test-pitting would be very helpful here, but would like to see flexibility to permit the field examiners to locate the second trench after completing the first, without requiring an amendment.

Robert A. Laurence
Robert A. Laurence
EXECUTIVE OFFICER
DMEA REGION V

V. J. Lynch
V. J. Lynch, Member, DMEA
Field Team, Region V
U. S. Bureau of Mines

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

WASHINGTON, D.C.

Department
Defense Minerals
RE
APR - 7 1955

April 5, 1955

Memorandum

To: Operating Committee, DMEA - Washington

From: Field Team, DMEA - Region V - Knoxville, Tennessee

Subject: DMEA-3689 (mica) Zeb Angel, applicant. Zeb Angel Prospect
Macon County, N. C.

Reference is made to your letter of March 25. The subject application was discussed with Mr. Houk and Mr. Kiilsgaard.

We are agreeable to extending the shaft below 60 feet, if conditions at that depth warrant, but we believe the contract should be sufficiently flexible to provide at least 60 feet of level work, without the delays attendant to approval of an amendment, if the pegmatite exposed in the workings justifies it.

Also, we agree that the locations of the trenches should be flexible, but at least the first should be a cross-cutting trench. This is not primarily to locate the shaft site, but rather to expose the full thickness of the pegmatite and obtain data on its zoning and structural relations. The shaft, might well be located away from the trench. Trenching by bulldozer along the edge of the quartz core would be difficult and might require some hand work. We doubt that test-pitting would be very helpful here, but would like to see flexibility to permit the field examiners to locate the second trench after completing the first, without requiring an amendment.

Robert A. Laurence
EXECUTIVE OFFICER
DMEA REGION V

V. J. Lynch, Member, DMEA
Field Team, Region V
U. S. Bureau of Mines

RAL/sm
cc:
Lynch
Shirley- Files

FILE COPY
Surname:

Houk
Selfridge
Johnson
Hendricks

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

MAR 2 5 1955

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region V
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Subject: Docket No. DMEA-3689 - Mica
Zeb Angel
Zeb Angel Prospect
Macon County, North Carolina

Dear Mr. Laurence:

Reference is made to the field examination report dated February 28, 1955, on the subject property.

It is noted that two crosscutting trenches are recommended for Stage I by the examiners, one at each end of the prominent quartz core outcrop. Since the object of trenching will be to locate the most favorable place along the outcrop to sink a shaft, we believe that, in this instance, trenching along the well-defined strike of the pegmatite between the two old shafts may be more effective and give us more valuable information. Then, if trenching is not fully conclusive, a series of shallow test pits may be necessary. In any case, we believe that a proposal should carry a provision to resort to test pitting to more fully confirm trenching work.

The field team report also recommends a 60-foot shaft on the pegmatite and 80 feet of drifts if justified by the results of trenching. It is our opinion that sinking should not be limited to 60 feet if the shaft is still in pegmatite at that depth, but that provision should be made to allow a portion or all of the authorized drifting footage to be converted to shaft sinking to more fully explore the target.

We would like to have your views on the above suggestions and if you agree we will draft a contract embodying them. Frequently your property sketches are incomplete; therefore it will be appreciated if all future sketches accompanying proposals contain a legend.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

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

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

JHopkins:ad 3/23/55
Copy to: Admr. R. File
Docket
Operating Committee

R.C.S.

IN REPLY REFER TO:

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

Defense Minerals Administration
RECEIVED
MAR 16 1955

March 16, 1955

Re: DMEA-3689
Zeb Angel
(Zeb Angel Mine)
Macon Co., N. C.
$5,433 - Mica

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of proposed exploration project

The Field Team has recommended a two-stage project for approval. Stage I will consist of trenching and, if the results are favorable, Stage II will be undertaken. This latter Stage will include a 60 foot shaft and an 80 foot drift.

A series of old pits, shafts and trenches were developed along the trend of a continuous pegmatite which is at least 600 feet long. The width of the pegmatite ranges from 5 to 20 feet, but the northwest part of the pegmatite has an average width in excess of 10 to 12 feet. The mica-bearing zones occur on both sides of a prominent quartz core; however, thorough decomposition has occurred near the surface. Material in the dumps suggests that the mica books are less than 3 inches in diameter. Past production has been small.

The size of the pegmatite and the abundance of mica in the old dumps is sufficient evidence to justify the Stage I trenching. The proposed underground work should not be done unless trenching exposes unweathered mica-bearing zones which are inferred to be present near the quartz core.

I recommend the proposed two-stage project be approved.

E. L. Newcomb

E. L. Newcomb

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

March 15, 1955

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-3689 (mica)

Applicant: Zeb Angel

Name and Location of Property: Angel Prospect
Macon County, North Carolina

Date Application Rec'd. by Br. of Ceram. & Fert. Mat.: Feb. 21, 1955

Comments:

1. No map attached to copy of application received by this office.

2. Proposed exploration is not explicit.

3. Applicant appears to have sufficient experience in mica mining.

4. No definite exploration plan has been submitted by the applicant, nor an estimated cost of the project.

Recommendation:

It is recommended that the field team visit this mine when in that vicinity to ascertain if an exploration project is justified. If so, the field team and applicant should agree on a definite plan of exploration on a unit-cost basis.

W. F. Dietrich

W. F. Dietrich

IN REPLY REFER TO:

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

Defense Minerals Administration
MAR 4 - 1955

March 2, 1955

Re: DMEA-3689
Zeb Angel
(Angel Prospect)
Macon Co., N. C.
$5,775 - Mica

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of application

The operator's proposal involves 60 feet of shaft sinking and 75 feet of drifting.

The application presents only a meager amount of data in support of the proposed exploration.

If the proposed shaft is warranted, we can assume an extensive area of exposed mica must be available for a geologic examination. Inasmuch as Mr. Angel has had previous exploration assistance from DMEA, it is possible that the Field Team is familiar with the project area.

I recommend this application be referred to the Field Team for a possible examination, if information available in their files indicates DMEA assistance may be geologically justified.

E. L. Newcomb
E. L. Newcomb

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

Department of the Interior
Defense Minerals Administration
RECEIVED
MAR 11 1955

March 10, 1955

Reviewed by
DMEA OPERATING COMMITTEE
3-16-55
(date)

Memorandum

To: Operating Committee, DMEA - Washington

From: Field Team, DMEA - Region V - Knoxville, Tennessee

Subject: Field Examination Report, DMEA-3689 (mica) Zeb Angel, Franklin, North Carolina

Enclosed are four copies of the subject examination report and six extra copies of the sketch map. The examination was made in advance of field referral, when our field men were in the area on other inspections.

We recommend approval of a two-stage contract, as outlined in the report. The deposit certainly merits the small expense of Stage I, in order to determine whether further work is justified. It is suggested that the word "approximately" be inserted after "trenches" under Stage I, in preparing exhibit "A" of the contract.

Please note that the sketch shows the approximate property line, near the east edge. It cannot be located any more accurately; even the applicant does not know exactly where it is, and a surveyor would have difficulty in locating it any more accurately. It is common in the rural counties of North Carolina for leases, deeds, etc., to be drawn without precise surveys. In this case, an originally much larger tract was subdivided among several heirs, without benefit of surveys. The field examiners are satisfied that the lease area is large enough for the project.

The cost of obtaining accurate surveys, if it is to be done by our field men, would far exceed the benefits to be derived and would hinder their useful field work. The value of such surveys appears to us to be in the same category as the value of title searches. If accurately surveyed property boundaries are to be required, the applicant should be advised, as soon as his application is submitted, that no field examination will be made until he provides us with a survey of his propety, made at his own expense. This will, of course, discourage applications, and reduce the number of contracts, and we do not consider it advisable.

V. J. Lynch
V. J. Lynch
U. S. Bureau of Mines,
Member DMEA Field Team

Robert A. Laurence
Robert A. Laurence
EXECUTIVE OFFICER
DMEA REGION V

MF-500

Hopkins

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 3-11

REFERRED TO:

1. ~~H Bentley~~
2. ~~Operating Committee~~
3. ~~Miss Curtin~~
4. 600

FOR:

---------- Action mo	---------- Recommendation
---------- Approval	---------- Record of ----------
---------- Comment	
---------- Conference	---------- Referring to ----------
---------- Consideration	
---------- Filing	---------- Reply for signature of ----------
---------- Instructions	
---------- Investigation	---------- Rewriting
---------- Initials	---------- Signature
---------- Mailing	---------- Suggestions
---------- Previous correspondence	---------- Your information

REMARKS: Field Exam. Report
~~For Agenda 3/16/55~~

also
Information

Check (X) before the items needing attention.

Would strike transfer not be more effective

GPO 16—63815-1

Initials of sender.

Legends on maps.
Too [illegible] — more accuracy less [illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD EXAMINATION REPORT BY FIELD TEAM
REGION V

On

DMEA-3689, ZEB ANGEL (mica)
Macon County, N. C.

BY

K. H. Teague and D. H. Amos, Geologists
U. S. Geological Survey

and

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

February 28, 1955

Reviewed by
DMEA OPERATING COMMITTEE
3-16-55
(date)

FIELD TEAM EXAMINATION REPORT
ON

DMEA-3689, ZEB ANGEL MINE
(mica)

Applicant: Zeb Angel, Franklin, North Carolina

Limited prospecting and a little mining has been conducted on this pegmatite since about 1890. The deepest workings have probably not exceeded 25-feet in depth. Mica exposed in the dump material is of strategic quality. The examiners recommend exploration assistance, to be conducted in two stages.

The deposit was examined on February 28, 1955. Messrs. Zeb Angel and Charlie Bradley accompanied the examiners on the inspection which required two hours.

The Zeb Angel Mine is a few hundred yards east of Dean, 2 1/2 airline miles N. 35° E. of Franklin, Macon County, North Carolina. Access is excellent at all times.

The applicant has considerable mica mining experience and is competent to conduct the proposed work.

This property is leased by the applicant. The attached sketch shows the only property line which lies within the immediate vicinity. Area under lease is adequate for the proposed work.

A series of pits, shafts, and trenches, now caved, and mostly inaccessible, extend for at least 600 feet along a northwest trending pegmatite. This application concerns the northwest 300 feet of the pegmatite. The width of the zone explored ranges from 5 to 20 feet and is greatest near the northwest part where a 10 to 12-foot thick mass of granular white quartz crops out for a length of about 150 feet. The outcrop of the quartz core is confined to the leased area. Pits have been dug on both sides of the quartz core.

Except for quartz and quartz-rich "burr-rock," all pegmatite observed is thoroughly decomposed. Most books of mica on the dump are weathered and do not exceed three inches in diameter, but some of the weathered books are flat and clear. At one place the impression of a mica book in the quartz core is 8 inches in diameter.

The pegmatite trends N. 65° W. and dips vertically. Nothing can be determined as to the distribution of mica in the pegmatite because of the absence of exposures. Apparently mica occurs adjacent to the core and probably in a wall zone. This assumption is based on the distribution of mica

Reviewed by
DMEA OPERATING COMMITTEE

3-16-55
(date)

in the pegmatite as exposed in a shaft which is about 200 feet southeast of the property line.

This pegmatite has been worked by Zeb Angel, Herman Dean, and A. W. Reid at various intervals since about 1890. Production has been small.

Exploration to be conducted in stages appears to be warranted. The examiners recommend that stage I consist of two crosscutting trenches, one to be located at the northwest end and one at the southeast end of the large quartz core. These trenches should be 75' x 12' x 10' and should give adequate evidence as to whether additional work is justified. If additional work is warranted Stage II should consist of a 60-foot shaft on the pegmatite and 80 feet of level work.

Estimated Cost:

Stage I		
Cut 2 bulldozer trenches 75' x 12' x 10'		
Bulldozer, 20 hrs. @ $10/hr.		$200.00
Stage II		
Construct toolhouse		75.00
Powder Magazine		25.00
Exploder "		13.00
Sink 60-foot, 5' x 7' shaft, timbered where necessary (30 shifts)		
Labor:		
1 - Miner @ $1.50/hr.	$360.00	
1 - Hoistman @ $1.25/hr.	300.00	
1 - Laborer @ $1/hr.	240.00	
Equipment (rental)		
Compressor, 1 mo. @ $200/mo.	200.00	
Pump, 1 mo. @ $20/Mo.	20.00	
Drill, 1 mo. @ $20/mo.	20.00	
Hoist @ $50/mo.	50.00	
Supplies:		
Explosives	200.00	
Gasoline and oil	125.00	
Drill steel	100.00	
Timber, 4000 b.f. @ $65/M	260.00	
Small tools & pipe	125.00	
Miscellaneous	150.00	
Insurance and Social Sec.	225.00	$2,400.00

Drive 80 feet of drift (30 shifts)

Labor:		
1 - miner @ $1.50/hr.	$360.00	
1 - Hoistman @ $1.25/hr.	300.00	
2 - Laborers @ $1/hr.	480.00	
Equipment (rental)		
Compressor @ $200/mo.	300.00	
Pump @ $20/mo.	30.00	
Drill @ $20/mo.	30.00	
Hoist @ $50/mo.	75.00	
Supplies:		
Explosives	250.00	
Gasoline and oil	200.00	
Drill steel	150.00	
Timber, 1,000 b.f. @ $65/M	65.00	
Small tools and pipe	125.00	
Miscellaneous	150.00	2560.00
Insurance and Social Sec.	205.00	$2,720.00
Estimated Total Cost.....		$5,433.00

3280
256

K. H. Teague and D. H. Amos, Geologists
U. S. Geological Survey

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

Examined: February 28, 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1025 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

Defense Minerals Administration
RECEIVED

February 17, 1955

Memorandum

To: Operating Committee, DMEA - Washington

From: Acting Executive Officer, DMEA - Region V, Knoxville

Subject: Application - Zeb Angel, Franklin, N. C. (mica)

Transmitted are three copies of the subject application , copy of the lease, a sketch of the property and six copies of MF-203, Owner's Consent to Lien.

One copy of the application has been retained in this office for our files.

V. J. Lynch

V. J. Lynch,

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

RECEIVED
FEB 18 1955

February 17, 1955

Memorandum

To: Operating Committee, DMEA - Washington

From: Acting Executive Officer, DMEA - Region V, Knoxville

Subject: Application - Zeb Angel, Franklin, N. C. (mica)

Transmitted are three copies of the subject application, copy of the lease, a sketch of the property and six copies of MF-203, Owner's Consent to Lien.

One copy of the application has been retained in this office for our files.

V. J. Lynch,

ZM.
cc:
Lynch
Shirley
Files

February 21, 1955
Subject: DMEA 3689
Re: Exploration Assistance

Mr. Zeb Angel
Box 91
Franklin, N. C.

Dear Mr. Angel:

The receipt of your application dated February 15, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3689 and referred to the Nonmetallic Minerals Division.

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

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

February 21, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region V

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region V.

DMEA - 3689 Zeb Angel

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

RECEIVED
FEB 18 1955

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 3689
Metal or Mineral Mica
Date Received 2-18-55
Estimated Cost $5,775
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Zeb Angel
Box 91
Franklin, N. C.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract see attached legal description of premises under lease by applicant.

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise lessee

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. attached copy of lease

(*e*) If you own the land, describe any liens or encumbrances on it does not apply

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information ~~you may have, indicating on each~~ whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

RECEIVED
FEB 17 1955
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you will to explore mica

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 30 days and be completed within four months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of 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.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—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 the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? yes

(*b*) How do you propose to furnish your share of the costs?

☐ Money ☒ Use of equipment owned by you ☒ Other Labor

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated February 15, 1955

Get Angel
(Applicant)

By

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

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

Supplement to MF-[redacted]3

Zeb Angel (Applicant)
Box 91
Franklin, N. C.

DEPARTMENT OF THE INTERIOR
Bureau of Mines
RECEIVED
FEB 18 1955

4. Old mine shaft 30 feet in depth at lower end of property, which is also at lower end of existing vein.

Map attached no present production. Past production record not now available.

U. S. Highway #441 runs by property, with a gravel road going onto property. Property is located 3 miles north of Franklin, N. C., shipping, supply and residence point. Also other residence points near property.

Manpower, materials, supplies and equipment are available in more than sufficient amounts from sources in Franklin and surrounding vicinity. Water and electrical power available at the property.

5. (d) Applicant has life-long exoerience in the mica mining and prospecting fields. Also has carried out exploration projects of this nature under government supervision previously. Applicant will supervise the operations.

6. (a) through (h) Expenditures contracted for as follows:

60 feet of shaft @ $50.00 per ft - - - -	3000.00
75 feet of tunnel @ $35.00 per ft - - -	2625.00
Tool House - -	100.00
Powder House - - -	50.00
Total	$ 5775.00

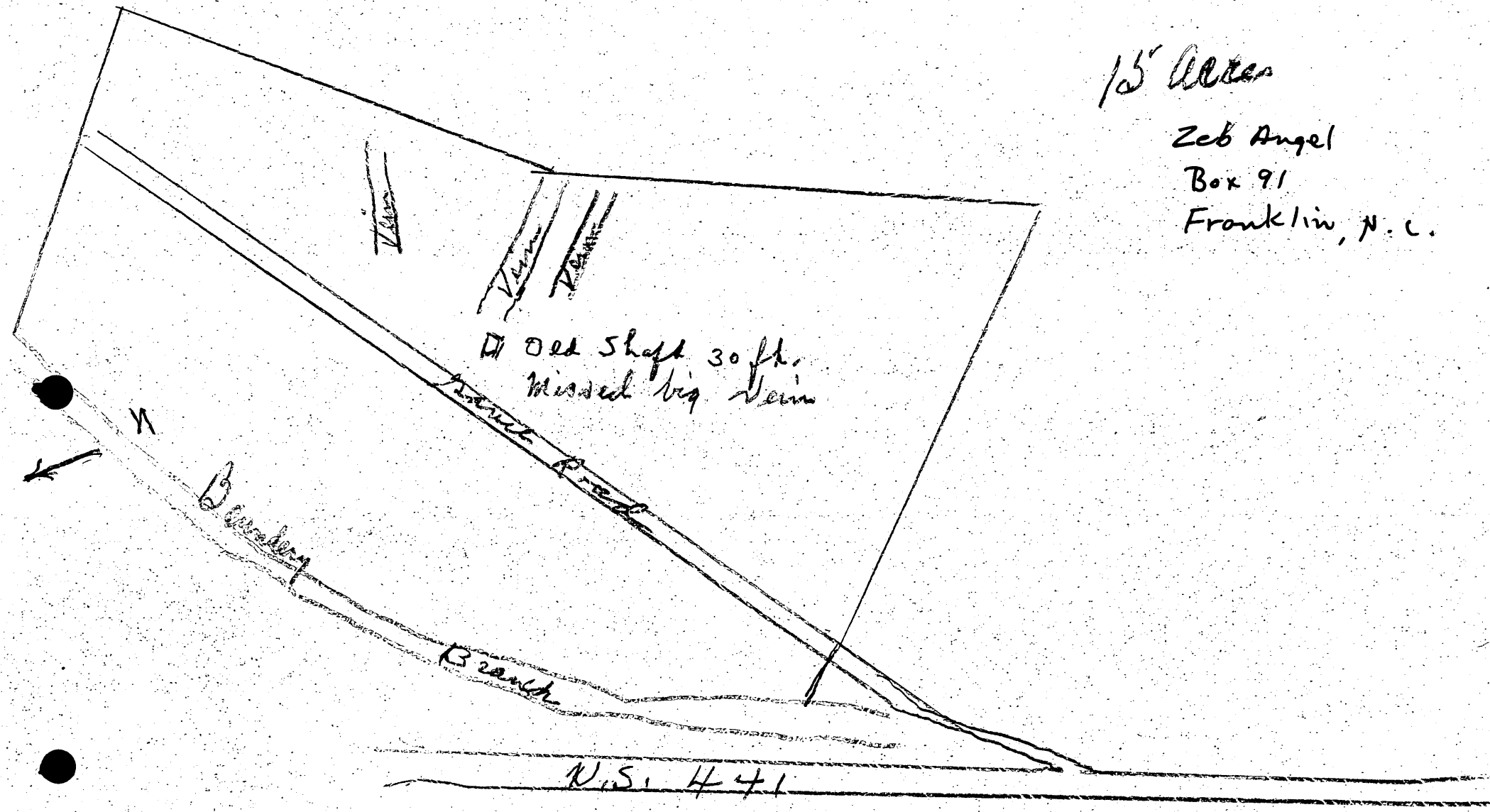
The above figures include contingencies.

Attached to and made a part of my application, this the 15th day of February, 1955.

Zeb Angel
Applicant

15 Acres

Zeb Angel
Box 91
Franklin, N.C.



NORTH CAROLINA

MACON COUNTY

Minerals Administration
RECEIVED
FEB 18 1955

THIS INDENTURE made and entered into on the day of , 1955, by and between HERMAN DEAN and wife ALMA DEAN, parties of the first part, and ZEB ANGEL, party of the second part;

W I T N E S S E T H :

That for and in consideration of the agreements hereinafter contained, the parties of the first part have hereby bargained, leased and granted and by these presents do bargain, lease and grant to the party of the second part, for a period of FIVE years from the date hereof, upon the terms and conditions hereinafter specified, the right to mine mica upon the following described properties situated in Macon County, State of North Carolina, more particularly described as follows:

> All that certain tract of land described in a deed from Cora Reid to Herman Dean, said deed being dated May 15, 1946, and recorded in the office of the Register of Deeds for Macon County, N. C., in Deed Book P-5, page 211.

The party of the second part has the right, for the aforesaid period of FIVE years, with the privilege of renewal for another like term of years, to enter upon the said lands, and dig and mine mica and in connection therewith to exercise, in so far as necessary, the mining rights and privileges upon said properties.

The party of the second part shall pay to the parties of the first part a royalty of twelve and one-half (12½) per cent of the market price on all mica mined thereon. All royalties shall be due and payable on or before the fifteenth (15th) day of each month upon all mica sold during the preceeding month.

It is further understood and agreed by the parties hereto that the said parties of the first part shall be furnished a paper statement of the amount of minerals mined and removed from said properties, and the party of the second part will at all times, upon reasonable request, permit the said parties of the first part, or their duly authorized agent, to inspect such books and records, relating to the sale of minerals mined and taken from said properties, as may be proper to determine the gross amount of royalties at or on any payment date.

It is understood and agreed that if the party of the second part shall fail to pay the royalties, as herein provided, or shall otherwise fail or neglect to perform and carry out any of the

terms of this lease, then and in such event all rights herein shall be forfeited and this lease shall be terminated.

It is further understood and agreed by the parties hereto that the failure of the party of the second part to do any work under the provisions of this agreement for a period of thirty (30) days affords proper cause for the termination of this agreement by the parties of the first part.

So long as this lease remains in force the parties of the second part shall, in connection therewith, have and enjoy the rights and privileges of mining mica on the premise thgether with the rights to construct and place upon the premises buildings and machinery, and to remove the same.

IN TESTIMONY WHEREOF, the said parties do hereto subscribe their respective names and affix their several seals, the day and year first above written.

Herman Dean (SEAL)

Alma Dean (SEAL)

Parties of the first part

Zeb Angel (SEAL)

Party of the second part

NORTH CAROLINA
MACON COUNTY

Personally appeared before me this day Herman Dean and wife, Alma Dean and Zeb Angel, who acknowledged the due execution of the foregoing instrument. Let the instrument with this certificate, be recorded.

WITNESS my hand and official seal, this the 11 day of February, 1955.

Kate McGee
Clerk Superior Court

Filed for registration on the 11 day of Feb 1955, at 9:00 o'clock A.M., and registered and verified in the office of the Register of Deeds for Macon County in Book No. H-6, Page 21

This 12 day of Feb 1955

Lake W. Shope
Register of Deeds for Macon County