DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 4973

Application
- [x] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

- [x] Project summary (final)
- [ ] Work Completed analysis (final)

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

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

Additional Folders:

Left Side

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

Right Side

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

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

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

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

April 8, 1958

410	C	220
		600

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: Big Ridge Mine, Haywood County, North Carolina.
John Blalock, applicant, Waynesville, N. C. (mica)

Enclosed is a copy of the lease between Haywood Lumber & Mining Company and John Blalock, et al. This lease concerns the application for exploration of the Big Ridge Mine in Haywood County, North Carolina, mailed your office April 1.

Robert A. Laurence

Robert A. Laurence

DMEA-4973

OFFICIAL FILE COPY
DMEA
RECEIVED APR 10 1958
DATE | INITIAL | CODE

Hazelwood, N. C.

Mr. Robert A. Laurence,
Executive Officer,
IMEA Field Team, Region V.
Room 13, Post Office Building,
Knoxville 2, Tenn.

Dear Mr. Laurence:

I am enclosing herewith a copy of the lease referred to in your letter, of the Big Ridge Mica Mine in Haywood County. The original has been recorded. This copy does not show the signatures.

I shall be in a position to meet the field examiners at the date suggested in your letter.

Yours very truly,
John V Blalock
John V. Blalock.

RECEIVED
APR 7 - 1958
U. S. Geological Survey
Conservation Division
Roanoke, Va.

NORTH CAROLINA)
HAYWOOD COUNTY)

THIS CONTRACT OF LEASE, made and entered into, this the 20th day of January, 1958, by and between Haywood Lumber & Mining Company, a corporation organized and existing under and by virtue of the laws of the State of North Carolina, with its principal office and place of business at Waynesville, in Haywood County, North Carolina, Party of the First Part, as LESSOR, and John V. Blalock, of Haywood County, North Carolina, S. A. Montague, of Spruce Pine, North Carolina, and Clarence Sparks, of Cclo, North Carolina, Parties of the Second part, as LESSEES,

W I T N E S S E T H:

That the party of the first part, Lessor, in consideration of the sum of One DOLLAR in hand received, and other good and valuable considerations, hereby accepted by the said Lessor, and in consideration of the agreements hereinafter contained on the part of Lessees to be performed, hereby bargains, leases and grants to Lessees, their heirs and assigns, for a period of FIVE YEARS from the date of this agreement, the following described real property for mining purposes, in the County of Haywood, and State of North Carolina, to-wit:

BEGINNING at a stone marked "5707" on top of Lickstone Mountain, and runs thence S. 50° 30' W. 6 chains, 80 links to a pile of stones; thence S. 72° W. 9. chains, 30 links to a pile of stones; thence S. 89° 45' W. 8 chains, 7 links to a pile of stones at a large rock; thence N. 64° W. 6 chains, 25 links to a rock 12-inches above a mountain oak; thence West 5 chains, 50 links to a point incenter of Robinson Ridge; thence S. 15° W. 17 chains, 4 links to stones; thence S. 12° W. 48 chains, 88 links to a stake by a maple;thence S. 54° 57' E. 10 chains, 72 links to a small W.O. on a cliff; thence S. 81° 40' E. 3 chains, 28 links to a sarvice on a cliff; thence N. 57° E. 2 chains, 58 links to a hickory; thence N. 59° E. 7 chains, 91 links

to a large mountain oak; thence N. 45° E. 7 chains, 44 links to a chestnut; thence N. 15° W. 1 chain, 94 links to a chestnut; thence N. 47° 45' W. 2 chains, 19 links to a white oak; thence N. 38° E. 5 chains, 94 links to a stake near an old corp; thence S. 81° 57' E. crossing the branch at 90 links and continuing the same bearing 11° chains 29 links to a boulder above the road; thence S. 51° 30' E. 2 chains, 96 links to a stake in road; thence S. 64° E. 1 chains, 73 links to a stake in road; thence S. 28° 57' E. 1 chain, 95 links to a stake in road; thence S. 17° E. 3 chains, 89 links to a stake in road; thence S. 62° 57' E. 1 chain, 33 links to a stake in road; thence S. 70° 45' E. 4 chains, 17 links to a stake in road; thence N. 88° 55' E. 3 chains,72 links to a large stone in a branch on the North side of the road; thence S. 3° W. 4 chains, 25 links to a stake in road; thence S. 35° 15' E. 2 chains, 43 links to a stake in road; thence S. 77° 57' E. 2 chains, 42 links to a stake in road; thence N. 85° 30' E. 1 chain, 69 links to a stake in road; thence S. 60° 30' E. 2 chains, 64 links to a stake on ridge; thence S. 54° E. 6 chains, 8 links to a locust; thence S. 52° E. to the line No. 4 of the Sprague and Ledbetter Survey; thence with that line N. 20° E. about 30 chains to a stake in the outside line; thence N, 42° 30' W. 11 chains to a stake and stones on the outside line; thence N. 20° W. 15 chains, 97 links to a stake and stones on the outside line/;thence N. 38° W. 45 chains to the BEGINNING' containing 432 acres, more or less, as per survey and map made by J. R. Ferrell, January 1925,

TO HAVE AND TO HOLD the said lands to them for mining purposes, the said lessees and their heirs and assigns, for the aforesaid period of five years, in compliance with the condition of this instrument, for the purpose and with the right to dig, quarry, search, explore for, obtain and remove any kind of metals or fossils, and particularly mica, and to conduct the same to any extent the said Lessees may desire. And it is hereby agreed between the parties hereto that said Lessees are to have the use of any unoccupied buildings on said lands for mining purposes and that they shall have the right to erect such buildings as they need to carry on such mining operations during the period of this lease, and that the said Lessees shall keep the same in as good condition as when received, unavoidable accidents excepted. And it is also agreed by the parties of the second part that no unnecessary damage is to be done to the lands herein leased during the period of this lease and the continuance of said lease, but the said Lessees shall have the right to take from said lands leased to said Lessees any wood or timber the parties of the second part may need to carry on said mining operation or which may be needed to carry on the addition to existing buildings or to erect new buildings or sheds on said lands. (Timber of high or special market value is excepted and shall not be used by the Lessees). And it is hereby agreed that parties of the second part, Lessees, are to have right-of-way for ingress and egress to said mines or land upon which exploration is being conducted.

AND IT IS FURTHER AGREED that the parties of the second part, the Lessees, hereby agree to pay to the said party of the first part, Lessor, its successors and assigns, a rental royalty of Twelve and one-half (12½%) per cent on all minerals taken and sold from said mines which shall be for the use of the said lands for the aforesaid period of five years. The said amounts shall be payable on the computation of selling bills on the tenth day

of each month covering sales made during the previous month. Any minerals other than those set forth above which may be taken and sold shall be paid for at the usual royalty rate of the minerals taken.

AND IT IS FURTHER AGREED that Lessees, their heirs or assigns, shall have the option to renew this lease and to extend the period of its running for an additional five years from the date of its present termination. The option shall be exercised by giving formal written notice to the party of the first part ninety days prior to the expiration of the first five year period by registered mail addressed to W. Kimball Sprague, Roscoe, New York.

The Lessor reserves the right to use the land, or convey the same not conflicting with this lease, but under any conveyance the terms of this lease must be recognized by the grantee, purchaser or assigns thereof. And it is agreed that Lessees may assign this mining lease or any part thereof, or may sublease for mining purposes the whole or any portion of said property, subject to the terms and limitations herein set forth.

This lease for the five year period commencing March 1st, 1958, and the right of renewal for an additional period, is subject this this provision: That from and after December 31, 1958, Lessees, their heirs or assigns, shall operate on said mining property, or in prospecting, improving and/or mining, with an average crew of not less than three persons for an average of nine months, or 270 working days in each calendar year, and upon failure of Lessees to so operate, prospect and improve, Lessor shall have the right, upon sixty days notice and demand, to cancel all rights hereunder if and unless the Lessees, within said sixty days, begin and renew operations and thereafter continue to comply with this provision.

IT IS FURTHER STIPULATED that the Lessees in selling said mineral products, shall receive and account for the highest

price obtainable at the point of delivery, and shall not have the right to sell said products to the Lessees or any of them, nor to any firm or corporation in which the Lessees or their assigns, are interested, without the approval and consent of the Lessor.

The Lessees, their heirs or assigns, shall at least quarterly furnish to the Lessor a statement of all minerals or mineral products sold from said lands, giving the name of the purchaser to whom said minerals were sold, and the quantity, and the price received, and keep the Lessor informed fully in relation to said operation.

It is further provided that the Lessees, their heirs or assigns, shall provide and carry liability insurance for the full protection of Lessees, their heirs or assigns, and the Lessor from any claims for loss or damage to employees or other persons in connection with said mining operation. However, it is understood that this provision in no sense recognizes any liability in said operation by the Lessor, as said operation shall be carried on by the Lessees, their heirs and assigns, independent of any direction from the Lessor in the way and manner in which said operation is carried on.

IN TESTIMONY WHEREOF, the Party of the First Part, Lessor, has caused these presents to be signed by O. B. Keller, its President, and attested by W. Kimball Sprague, its Secretary, and its corporate seal to be hereto affixed, by its authority duly given, the day and year first above written.

HAYWOOD LUMBER & MINING COMPANY

By_____
President

ATTEST:

_____
Secretary.

STATE OF NEW YORK)
:
COUNTY OF SULLIVAN)

I, _____, a Notary Public in and for the State and County aforesaid, do hereby certify that W. Kimball Sprague personally came before me this day and acknowledged that he is Secretary of Haywood Lumber & Mining Company, a corporation, and that, by authority duly given and as the act of the corporation the foregoing instrument was signed in its name by its President, sealed with its corporate seal, and attested by himself as its Secretary.

WITNESS my hand and notarial seal, this the _____ day of _____, 1958.

_____
Notary Public

My commission expires:

_____

STATE OF NORTH CAROLINA)
:
COUNTY OF HAYWOOD)

The foregoing certificate of _____ a Notary Public in and for the State of New York, and County of Sullivan, duly authenticated by the notarial seal thereto affixed, is in due form and according to law, and is adjudged to be correct and sufficient. Let the annexed instrument, with said certificate and this certificate, be registered.

This the _____ day of _____, 1958.

_____
Clerk Superior Court.

.205
(Combines and supercedes MF-201 and MF-203)
June 1956

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator_____
Docket No. DMEA-_____
Contract No. Idm-E_____
Contract Date_____

RECEIVED
APR 3 1958
D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Haywood, State of North Carolina, described as follows: 2/

Being that certain tract of land containing 432 acres more or less and more fully described in lease from Haywood Lumber and Mining Company to John V. Blalock, S. A. Montague and Clarence Sparks, dated January 20, 1958 and of record in Book 174 at page 577, Haywood County registry, to which reference is hereby made for a full and complete description of said 432 acre tract of land.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

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

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

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

None

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [~~or contract, deed, or other document~~] dated Jan 20 1958, and recorded in Book 174, Page 577, 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.

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

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

7. Added provision: None (State "None" or "See Annex No.____")

Dated this 21st day of February, 1958

Haywood Lumber & Mining Co	[Seal]	Rosco, N.Y.	[Address]
by Chandler Keller	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

I, W. Kimball Sprague certify that I am the Secretary (Secretary, ~~etc.~~) of the corporation named herein; that Chandler G. Keller who signed this agreement was then Vice President (~~President~~ or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

W. Kimball Sprague

[Corporate Seal]

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator_____
Docket No. DMEA-_____
Contract No. Idm-E_____
Contract Date_____

RECEIVED APR 8 1958 D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Haywood, State of North Carolina, described as follows: 2/

Being that certain tract of land containing 432 acres more or less ~~and more fully described in lease from Haywood Lumber and Mining~~ Company to John V. Blalock, S. A. Montague and Clarence Sparks, dated ~~January 20, 1958 and of record in Book~~ 174 ~~at page~~ 577 ~~, Haywood~~ County registry, to which reference is hereby made for a full and ~~complete description of said 432 acre tract of land.~~

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

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

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

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

None

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [~~or contract, deed, or other document~~] dated Jan 20 1958, and recorded in Book 174-~~577~~ Page 577, 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.

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

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

7. Added provision: None (State "None" or "See Annex No.____")

Dated this 21st day of February, 1958.

Haywood Lumber & Mining	[Seal]	Rosoe, N. Y.	[Address]
By Chandler Y. Keller	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

I, W. Kimball Sprague certify that I am the Secretary (Secretary, ~~etc.~~) of the corporation named herein; that Chandler Y. Keller who signed this agreement was then Vice President (~~President~~ or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

W. Kimball Sprague

[Corporate Seal]

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

RECEIVED APR 3 1958 D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Haywood, State of North Carolina, described as follows: 2/

Being that certain tract of land containing 432 acres more or less ~~and more fully described in lease from Haywood Lumber and Mining~~ Company to John V. Blalock, S. A. Montague and Clarence Sparks, dated ~~January 20, 1958 and of record in Book~~ 174 ~~at page~~ 577, ~~Haywood~~ County registry, to which reference is hereby made for a full and ~~complete description of said 432 acre tract of land.~~

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

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

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

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

None

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [~~or contract, deed, or other document~~] dated Jan. 20, 1958, and recorded in Book 174, Page 577, 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.

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

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

7. Added provision: None (State "None" or "See Annex No.____")

Dated this 21st day of February, 1958.

Haywood Lumber & Mining Co	[Seal]	Roscoe, N.Y.	[Address]
By Chandler G. Kelly	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

I, W. Kimball Sprague certify that I am the Secretary (Secretary, ~~etc.~~) of the corporation named herein; that Chandler G. Kelly who signed this agreement was then Vice President (~~President~~ or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

W. Kimball Sprague
[Corporate Seal]

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

RECEIVED
APR 3 1958
D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Haywood, State of North Carolina, described as follows: 2/

~~Being that certain tract of land containing 432 acres more or less and more fully described in lease from Haywood Lumber and Mining Company to John V. Dilock, G. A. Montague and Clarence Sparks, dated January 20, 1958 and of record in Book 174 at page 577, Haywood County registry, to which reference is hereby made for a full and complete description of said 432 acre tract of land.~~

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

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

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

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

None

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [~~or contract, deed, or other document~~] dated Jan. 20 1958, and recorded in Book 174, Page 577, 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.

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

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

7. Added provision: 23rd February (State "None" or "See Annex No.____")

Dated this _____ day of _____, 195__.

Hayward Lumber & Mfg Co	[Seal]	Rescue New York	[Address]
by Chandler G. Keller	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

I, W. Kimball Sprague certify that I am the Secretary (Secretary ~~etc~~) of the corporation named herein; ~~that~~ Chandler G. Keller who signed this agreement was then Vice President (~~President~~ or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

W. Kimball Sprague

[Corporate Seal]

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator _____
Docket No. DMEA- _____
Contract No. Idm-E _____
Contract Date _____

RECEIVED
APR 3 1958
D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Haywood, State of North Carolina, described as follows: 2/

Being that certain tract of land containing 132 acres more or less and more fully described in Lease from Haywood Gaskin and Mining Company to John V. Blalock, C. A. Montague and Clarance Crawford, dated January 20, 1958 and of record in Book 174 at page 577, Haywood County registry, to which reference is hereby made for a full and complete description of said 132 acre tract of land.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

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

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

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

None

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated Jan 20 1958, and recorded in Book 174, Page 577, 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.

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

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

7. Added provision: None (State "None" or "See Annex No.____")

Dated this 21st day of February, 195_0.

Hayward Lumber & Mining Co.	[Seal]	Rosser New York	[Address]
By Chandler G. Kelly	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

I, W. Kimball Sprague certify that I am the Secretary (Secretary, ~~etc.~~) of the corporation named herein; that Chandler G. Kelly who signed this agreement was then Vice President (~~President~~ or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

W. Kimball Sprague
[Corporate Seal]

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator_____
Docket No. DMEA-_____
Contract No. Idm-E_____
Contract Date_____

RECEIVED
APR 8 1958
D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Brevard, State of North Carolina, described as follows: 2/

Being that certain tract of land containing 100 acres more or less and more fully described in Book 174 of Deeds, Page 577, Brevard County, N.C. Records, to which reference is hereby made for a full and complete description of said tract of land.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

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

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

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

None

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [~~or contract, deed, or other document~~] dated Jan 20 1958, and recorded in Book 174, Page 577, 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.

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

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

7. Added provision: None (State "None" or "See Annex No.____")

Dated this 2nd day of February, 195_.

Hayward Lumber & Mining Co	[Seal]	Reno, Nev	[Address]
By Chandler Y. Keller	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

I, W. Kimball Sprague certify that I am the Secretary (Secretary, ~~etc~~.) of the corporation named herein; that Chandler Y. Keller who signed this agreement was then Vice President (~~President~~ or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

W. Kimball Sprague
[Corporate Seal]

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

ROOM 13 POST OFFICE BLDG
KNOXVILLE 2, TENN.

COPY
DMEA
APR 3 1958

April 1, 1958

Memorandum

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

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

Subject: Application from John Blalock, et al.
Big Ridge Mine, Haywood County, North Carolina (Mica)

Enclosed are the original and two copies of the subject application which was received at this office, with one copy of the map. We are keeping the fourth copy of the application for our use.

Five executed copies of the Consent to Lien and Subordination Agreement are enclosed. However, the Applicants did not submit a copy of their lease. They have been requested to do so, and we will forward it as soon as received.

In order to avoid a last-minute accumulation of examinations at the end of the fiscal year, we plan to make a field examination on April 11. The Big Ridge mine is one of the largest mica mines in North Carolina.

Robert A. Laurence
Robert A. Laurence
Executive Officer

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

Enclosures9

Form MF–103
Revised Feb. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42–R1035.3
Approval expires June 30, 1958

APPLICATION FOR AID IN AN EXPLORATION PROJECT

PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

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

John Blalock, Poplar Street, Waynesville, North Carolina
Clarence Sparks, Celo, North Carolina
S. A. Montague, Spruce Pine, North Carolina.

APPLICANT NOT TO USE THIS BLOCK

Docket Number: DMEA-4973
Date Received: 4-3-58
Government Participation %:
Region: V
Division Code: 600

BUSINESS ORGANIZATION (Check one)

- Individual [ ]
- Corporation [ ]
- Partnership [X]
- Other (Specify) [ ]

State in which firm is organized: N. C.

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
John Blalock	Waynesville, N. C.	Partner
Clarence Sparks	Celo, North Carolina	Partner
S. A. Montague	Spruce Pine, N. C.	Partner

Mineral(s) for which you wish to explore: Ruby Mica

Estimated Cost of Project: $ 17,125.00

LOCATION OF PROPERTY

Name	County	State
Big Ridge	Haywood	N. C.

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order–I, Amended, "Government Aid in Defense Exploration Projects." To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 1, existing mine workings and geology in item 2, and the proposed exploration project in item 4. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 2(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest DMEA Field Office.*

CERTIFICATION

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

March 17, 1958
Dated

RECEIVED
MAR 25 1958

John Blalock, Clarence Sparks & S. A. Montague
Clarence Sparks
BY (Signature)

John V. Blalock
Title

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

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

(a) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all land adjacent to the proposed project area which you own or control. Describe any part of the project land or workings which should not be subject to Government lien for royalty payments. If the land consists of unpatented claims, state the book and page number for each recorded location notice, including amended locations, and the place where recorded (courthouse, recorder's office, county, and state).

(b) State all the names by which you know the property.

(c) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise. If you are not the owner, submit with this application one exact copy of the lease, contract, or other document (with address of owner) under which you control the property.

(d) Describe all liens, mortgages, or other encumbrances on the property.

2. *Physical Description:*

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

(b) State your interest, if any, in operations stated in 2*(a)*.

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

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

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

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

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

3. *Accessibility of Project:*

(a) To aid DMEA representatives who may be required to examine the property, state the name and address of the person who will meet the DMEA representative; give directions for reaching the property; and describe accessibility of the property including the mine workings.

(b) Name the shipping and supply points and places where employees reside and state the distances between them and the property.

4. *The Exploration Project:*

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

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

(c) In the event that an exploration contract with DMEA is executed, how soon will the work start and how many months will be required to complete it? State your anticipated average daily or monthly rate of progress for each type of work.

5. *Experience:*

State your operating experience and background with relation to your ability to carry out this exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of Costs:*

Furnish detailed estimates of the costs *for each item of the work proposed in 4(a)* under the headings listed below with a total for each heading and the estimated total cost of the project. Costs for any work to be performed by an independent contractor should be shown separately under category *(a)* below. Costs for any work that is not to be performed by an independent contractor should be given in detail under categories *(b)* through *(g)*.

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

(b) Personal services. For necessary supervision, engineering and geological services, and labor, include an itemized schedule of numbers, classes, rates of wages, salaries or fees, and periods of employment. State whether these technicians and employees are available.

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

(d) Operating equipment. List items of operating equipment to be used giving specifications and indicating how each item is to be acquired – i.e., rented, purchased, or provided by the applicant. If it is rented or purchased, state the estimated rental or purchase price. If it is to be furnished by the applicant, give its present fair market value.

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

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

(g) Miscellaneous. For the operating equipment listed in 6*(d)*, describe the type and estimate the cost of repairs and maintenance expected during project operations. Do not repeat initial repairs listed in 6*(e)*. Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories.

Note – 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)* State whether you are prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation stated in Sec. 7 of DMEA Order–I, Amended.

(b) Explain to what extent you propose to furnish your share of the costs by providing money, by use of equipment owned by you, or otherwise.

* * * * *

INT.-DUP. SEC., WASH., D.C. 15539

1(a) Located in Haywood County and BEGINNING at a stone marked "5707" on top of Lickstone Mountain, and runs thence south 50 degrees 30 minutes west 6 chains 80 links to a pile of stones; thence S 72 W 9 chains 30 links to a pile of stones; thence S 89 deg. 45' W 8 chains 7 links to a pile of stones at a large rock; thence N 64 W 6 chains 25 links to a rock 12 inches above a mountain oak; thence west 5 chains 50 links to a point in center of Robinson Ridge; thence S 15 W 17 chains 4 links to stones; thence S 12 W 48 chains 88 links to a stake by a maple; thence S 54 deg. 57' E 10 chains 72 links to a small W. O. on cliff; thence S 81 deg. 40' E 3 chains 28 links to a sarvice on a cliff; thence N. 57 E 2 chains 58 links to a hickory; thence N. 59 E 7 chains 91 links to a large mountain oak; thence N 45 E 7 chains 44 links to a chestnut; thence N 15 E 1 chain 94 links to a chestnut; thence N 47 deg. 45' E 2 chains 19 links to a white oak; thence N. 38 E 5 chains 94 links to a stake near an old camp; thence S 81 deg. 57' E crossing the branch at 90 links and continuing the same bearing 11 deg chains 29 links to a boulder above the road; thence S 51 deg. 30' E 2 chains 96 links to a stake in road; thence S 64 E 1 chain 73 links to a stake in road; thence S 28 deg. 57' E 1 chain 95 links to a stake in road; thence S 17 E 3 chains 89 links to a stake in road; thence S 62 deg. 57' E 1 chain 33 links to a stake in road; thence S 70 deg. 45' E 4 chains 17 links to a stake in road; thence N 88 deg. 55' E 3 chains 72 links to a large stone in a branch on the north side of the road; thence S 3 W 4 chains 25 links to a stake in road; thence S 35 deg. 15' E 2 chains 43 links to a stake in road; thence S 77 deg. 57' E 2 chains 42 links to a stake in road; thence N 85 deg. 30' E 1 chain 69 links to a stake in road; thence S 60 deg. 30' E 2 chains 64 links to a stake on ridge; thence S 54 E 6 chains 8 links to a locust; thence S 52 deg. 10' E to the line No. 4 of the Sprague and Ledbetter Survey; thence with that line N 20 E about 30 chains to a stake in the outside line; thence N 42 deg. 30' W 11 chains to a stake and stones on the outside line; thence N 20 W 15 chains 97 links to a stake and stones on the outside line; thence N 38 W 45 chains to the BEGINNING, and containing 432 acres, more or less, as per survey and map made by J. R. Terrell, January 1926.

(b) BIG RIDGE.
(c) Lessees.
(d) None known to applicants.

2(a) 1942 map and sketch attached hereto. — mailed separately
(b) None.
(c) Inactive since 1945. Big Ridge Mine was a large producer of ruby mica during World War II. Records on this mine are available in Bureau of Mines.
(d) None.
(e) Vein. Bureau of Mines has geologic data.
(f) Hope to find mica. It is the belief of applicants that mica continues beyond the area already worked.
(g) 1942 map attached. Bureau of Mines has detailed maps and sketches of this mine.

3(a) DMEA representatives should contact John Blalock, Poplar Street, Hazelwood Section of Waynesville, North Carolina. Property is located in Haywood County, N. C. about 4 miles from Waynesville.
(b) Waynesville, N. C. is shipping point. Plan of applicants is to erect bunkhouses on the leased property.

4 (a) Proposal is to drive heading for 350 feet on the west side of "BACKBONE" as shown on attached map. Size of openings will be

5 x 7 feet. Detailed information shown on enclosed map.

(b) There is a road already built to mine but it has washed out and need repairing. Propose to rebuilt old road and make 2000 feet of new road. Level off with bulldozer and surface road with mine waste

(c) Work will begin within 30 days and be completed within from 6 to 9 months.

5. Experience of Applicants:

John Blalock-began work as a laborer in this mine in 1917 and has had many years experience working mica mines.

Clarence Sparks- miner for 20 years. Mica Mine Operator for past 6 years.

S. A. Montague- 35 years general experience in mica business. Mining experience in New Hampshire and Connecticut.

6. ESTIMATE OF COSTS:

Reworking and extending road	$500.00	
Bunk House for employees	500.00	
Combined Compressor shed & tool house	300.00	
Dynamite & Gas Storage Space	75.00	1375.00
350 feet of heading on west side of "BACKBONE" @ $45 per foot		15750.00
TOTAL COST ESTIMATE		$17125.00

(e) Old buildings are gone.

(f) Bunk Houses and storage spaces as set forth above.

7(a) Yes.

(b) Money.

DMEA
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DMEA Form 7
(12-56)

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Date	Surname	Code
6/26	Houk	

May 21, 1958

Memorandum

To: Mr. C. O. Mittendorf, Administrator

From: Lawrence G. Houk, Director, Division of Nonmetallic Minerals

Subject: Evaluation of application and field examination report
Docket No. DMEA-4973-Mica
John Blalock, et al.
Big Ridge Mine
Haywood County, North Carolina

Denial of application is recommended.

Mica: The mica is commonly warped, crinkled, cracked, and reeved. It is locky and contains numerous mineral inclusions and intergrowths, chiefly of quartz, feldspar, and biotite, and has much green mottling (vegetable stain). None of the mica seen was of sufficient quality to be classed as strategic under the present program. Mica in the pegmatite averages about 3%, varying from about 5% around the nose in the SW part to less than 2% in the NE headings.

Pegmatite: The thickness ranges from about 2 ft. to more than 20 ft. in dome-shaped pegmatite and has been explored for a length of 650 ft., maximum width of 300 ft., over a vertical range of 200 ft. The pegmatite is a rather homogeneous medium- to coarse-grained aggregate consisting dominently of plagioclase, containing appreciable quartz, muscovite and biotite. A closely related granitic intrusive rock cuts sharply across biotite gneiss.

Workings: Underground workings are a vast maze interconnecting stopes, drifts, inclines, tunnels, and adits extending 650 ft. in length and 300 ft. in width, through a vertical range of about 200 ft. In vertical section the workings are assymetrically-arched both longitudinally as well as transversely to follow the irregular dome-shaped pegmatite body.

Past production: Total production of the deposit is not known but about 436,000 pounds of sheet mica and 807,000 pounds of punch (total 1,243,000 pounds) were produced in 1922-1944. More than 1,000 pounds of "strategic mica" was produced each month under the Colonial Program. In 1952 a large lot of mica was rejected by GSA Purchase Depot because of poor quality.

Applicants proposal:

Reworking and extending road	$500.00	
Employees Bunk House	500.00	
Compressor shed & tool house	300.00	
Dynamite & Gas Storage Space	75.00	$1,375.00
350 ft. of heading on west side of backbone @ $45/ft.		15,750.00
Total		$17,125.00

Comments: The Field Team recommended denial based on the non-strategic quality of the mica produced in 1952. They point out that the mica produced in the upper levels was higher quality and that the ratio of biotite to muscovite will probably increase at depth. The Operators program would not provide a substantial target above the adit level, then too the pegmatite is expected to pinch out on all the flanks of the dome. Exploration recommended during the Colonial Mica Program and carried out subsequently found only mica of poor quality.

Recommendations: The Field Team recommends denial. The Division of Nonmetallic Minerals and the Commodity Members of the Bureau of Mines and the Geological Survey concur in the Field Team's recommendation.

LGHouk:gad 5/22/58
Copy to: Admr. R. File
Mr. Houk

DMEA Form 7
(12-56)

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Date	Surname	Code
10/24	Houck	600
10/24	Selfridge	120
		~~100~~
		220

600

OCT 2..

Mr. S. A. Montague

Spruce Pine, North Carolina

Re: Docket No. DMEA-4973-Mica
John Blalock, Clarence Sparks
and S. A. Montague
Big Ridge Mine
Haywood County, North Carolina

Dear Mr. Montague:

Enclosed you will find the copy of the map of the Big Ridge Mine which you submitted with the subject application.

Mr. Laurence has listed all of the maps that are available from the Geological Survey. The Washington office of the Office of Minerals Exploration knows of no other maps that are available.

Sincerely yours,

FRANK E. JOHNSON (B.H.)

ACTING Director

Enclosure

LGHouk:gad 10/24/58
Copy to: Dir. R. File
Field Team, Region V
Mr. Kiilsgaard
Mr. Dietrich
Mr. Houk

8623

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RECEIVED
DATE
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220
600
225

October 22, 1958

Mr. S. A. Montague
Spruce Pine Mica Company
Spruce Pine, North Carolina

Re: Docket No. DMEA-4973 (Mica)
John Blalock, et al.
Big Ridge Mine
Haywood County, North Carolina

Dear Mr. Montague:

The map which you submitted with your application was forwarded to the Washington office last April, along with copies of the application. I am writing to them to ask that your map be returned to you, in accordance with your request of October 21.

I do not have any maps of the Big Ridge mine which are available for distribution. However, the Geological Survey, in 1944, released the following maps in open file:

1. Big Ridge mica mine area.
   Scale 1 inch = 50 feet; size of map 20 x 34 inches
2. Plan of principal workings.
   Scale 1 inch = 50 feet; size 17½ x 21 inches
3. Structural Contour map.
   Scale 1 inch = 50 feet; size 14 x 16 inches
4. Geologic plans of adits.
   Scale 1 inch = 50 feet; size 15½ x 21 inches
5. Vertical sections.
   Scale 1 inch = 50 feet; size 23½ x 30 inches
6. Geologic illustrations.
   Various scales, size 20 x 20 inches

Any or all of these can be reproduced for you, at your expense, if you wish. As they are not transparent copies, it will be necessary to make an autopositive and an osalid print of each, at an approximate cost of $0.56 per square foot. If you want these maps, let me know and I will have a local firm make the copies. If time is short, a telephone call will be sufficient authorization to have the work done. My telephone number is 2-7787. The blue print firm will than mail the maps and their invoice direct to you.

Please remember, however, that these are 1944 maps and therefore will not be completely up to date.

Sincerely yours,

Robert A. Laurence
Executive Officer
Region V

RAL/mg
cc - Operating Committee (2)
Mr. V. J. Lynch
Files

EXTRA COPY
O. M. E.
RECEIVED OCT 24 1958
DATE | INITIALS | CODE

October 22, 1958

Mr. S. A. Montague
Spruce Pine Mica Company
Spruce Pine, North Carolina

Re: Docket No. DMFA-1973 (Mica)
John Blalock, et al.
Big Ridge Mine
Haywood County, North Carolina

Dear Mr. Montague:

The map which you submitted with your application was forwarded to the Washington office last April, along with copies of the application. I am writing to them to ask that your map be returned to you, in accordance with your request of October 21.

I do not have any maps of the Big Ridge mine which are available for distribution. However, the Geological Survey, in 1944, released the following maps in open file:

1. Big Ridge mica mine area.
   Scale 1 inch = 50 feet; size of map 20 x 34 inches
2. Plan of principal workings.
   Scale 1 inch = 50 feet; size 17½ x 21 inches
3. Structural Contour map.
   Scale 1 inch = 50 feet; size 14 x 16 inches
4. Geologic plans of adits.
   Scale 1 inch = 50 feet; size 15½ x 21 inches
5. Vertical sections.
   Scale 1 inch = 50 feet; size 23½ x 30 inches
6. Geologic illustrations.
   Various scales, size 20 x 20 inches

Any or all of these can be reproduced for you, at your expense, if you wish. As they are not transparent copies, it will be necessary to make an autopositive and an osalid print of each, at an approximate cost of $0.56 per square foot. If you want these maps, let me know and I will have a local firm make the copies. If time is short, a telephone call will be sufficient authorization to have the work done. My telephone number is 2-7787. The blue print firm will then mail the maps and their invoice direct to you.

Please remember, however, that these are 1944 maps and therefore will not be completely up to date.

Sincerely yours,

Robert A. Laurence
Executive Officer
Region V

RAL/mg
cc - Operating Committee (2)
Mr. V. J. Lynch
Files

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

October 22, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 24 1958

DATE	INITIALS	CODE
10/24	C	220
10/24	Hook	600
		225

Memorandum

To: Operating Committee, OME - Washington

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

Subject: DMEA-4973-mica. John Blalock, et al, Applicants. Big Ridge Mica Mine, Haywood County, N.C.

Enclosed is a copy of a letter received from one of the partners, requesting return of the map submitted with the subject application.

Only one copy of the map was submitted, and this was forwarded to you on April 1, 1958. As this application has been denied, there would seem to be no reason to retain the map, which apparently was the Applicant's only copy. We suggest that it be returned to Mr. Montague in accordance with his request.

Robert A. Laurence
Robert A. Laurence
Executive Officer, OME - Reg. V

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

EXTRA COPY
O. M. E.
RECEIVED OCT 24 1958
DATE | INITIALS | CODE

October 22, 1958

Memorandum

To: Operating Committee, OME - Washington

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

Subject: DMEA-4973-mica. John Blalock, et al, Applicants.
Big Ridge Mica Mine, Haywood County, N.C.

Enclosed is a copy of a letter received from one of the partners, requesting return of the map submitted with the subject application.

Only one copy of the map was submitted, and this was forwarded to you on April 1, 1958. As this application has been denied, there would seem to be no reason to retain the map, which apparently was the Applicant's only copy. We suggest that it be returned to Mr. Montague in accordance with his request.

Robert A. Laurence
Executive Officer, OME - Reg. V

V. J. Lynch, Member
Bureau of Mines

RAL/sm
cc
Lynch
Files

SPRUCE PINE MICA COMPANY

FABRICATED AND UNCUT MICA

SPRUCE PINE, NORTH CAROLINA

S. A. MONTAGUE, President
Vice President
Secretary

October 21, 1958

Defense Minerals Exploration Administration
Room 13 - Post Office Building
Knoxville 2, Tennessee

Attention: Mr. R. A. Laurence
Executive Officer, DMEA
Region V

Re: DMEA-4973 (mica)
John Blalock, et al
Big Ridge Mine, Haywood County, N. C.

Gentlemen:

This is a belated acknowledgement of your letter dated September 9th to me. My partners had not taken the trouble to advise me of having a received a definite denial of our application for exploration project aid.

We have now decided to go ahead with a certain amount of prospecting at this mine at our own expense. It would be appreciated if you could return to us the map of the Big Ridge Mine which we submitted to you with our application. Possibly your files may contain a better map of these workings, and if so and there might be an extra copy available, that would be very useful to us as well.

As one of our first steps will be to get a surveyor into the mine, which we hope will be by the middle of next week, we need to get the map back from you very quickly.

Yours truly,

S. A. Montague

S. A. Montague

SAM:lt

RECEIVED
OCT 22 1958
U. S. Geological Survey
Oil & Gas Division
Knoxville, Tenn.

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

September 9, 1958

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225

Mr. S. A. Montague
Spruce Pine Mica Co.
Spruce Pine, N. C.

Re: DMEA-4973 (mica)
John Blalock, et al
Big Ridge Mine, Haywood County, N.C.

Dear Mr. Montague:

Your letter of September 4, addressed to the Bureau of Mines at Norris, Tennessee has been referred to me for reply.

On May 27, 1958, Mr. C. O. Mittendorf wrote a letter explaining that the application for assistance in exploring at the Big Ridge Mine was denied. The letter was addressed to the partnership, in care of John Blalock, Poplar Street, Waynesville, N.C.

As you have apparently not received the letter, I am enclosing a copy for your information.

Sincerely yours,

Robert A. Laurence
Executive Officer, DMEA
Region V

RAL/zm
cc
Opr. Com-2
Lynch

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/26	Fay	600
5/23	Selbridge	130
	Lewis	130
	Nelson	130
5/26	Johnson	110
"	Mittendorf	100
5/27	H. J.	220
		225

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MAY 27 1958

Messrs. John Blalock, Clarence Sparks,
and S. A. Montague
c/o Mr. John Blalock
Poplar Street
Waynesville, North Carolina

Re: Docket No. DMEA-4973-Mica
John Blalock, et al.
Big Ridge Mine
Haywood County, North Carolina

Gentlemen:

Your application for aid for an exploration project and other reports available to us in Washington relating to the subject property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information indicates to us that the probability of disclosing significant reserves of mica is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

LGHouk:gad 5/22/58
Copy to: Admr. R. File
Operating Committee
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

8623

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 24 1958
DATE | INITIALS | CODE
5/23 | N.G. | 225 600

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

May 22, 1958
Re: DMEA 4973
John Blalock et al
Big Ridge Mine
Haywood County, N.C.
$17,125 - Mica

Memorandum

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

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

Subject: Review of Field Team Report

The applicant requested assistance in driving an entry to an old mine. Analysis of the proposal suggests it was the result of guesswork and not likely to make available a significant amount of mica.

The examiners found a piece of work recommended by Klepper and Heinrich in 1944 had been done and so far as strategic mica is concerned, was not productive. Another project, a crosscut and drift, recommended by Klepper and Heinrich has not been done, but judging by the results of the drifting around part of the nose of the pegmatite, the work is considered not warranted by the examiners.

Partly because of the position of the proposed adit, but largely on account of the low quality of the mica that might be expected, the examiners recommend that the application be denied.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 22 1958
DATE | INITIALS | CC
5/22 | C | 220
600

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

May 21, 1958

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Acting Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4973 (mica)

Applicant: John Blalock, et al.

Name and Location of Property: Big Ridge Mine, Haywood County, N. C.

Date of Field Team Report: 5/14/58

Date Rec'd. by Br. of Ceramic & Fertilizer Materials: 5/20/58

Field Team Recommendation: Recommend denial of application.

Comments:

1. This is an old mine with a large past production of only fair quality muscovite.
2. Field examiners state that mica visible in old workings is of nonstrategic quality under present purchasing program.
3. Applicants proposal does not have a target that would open up any extensive new pegmatite area as proposed tunnel would be close under or into old workings.

Recommendation:

I concur with the field team in recommending denial of the application.

Donald R Irving

Donald R. Irving

May 21, 1958

Mr. S. A. Montague, Spruce Pine Mica Co., calling Mr. L. G. Houk from Spruce Pine, North Carolina.

Re: Docket No. DMEA-4973-Mica
John Blalock, et al.
Big Ridge Mine
Haywood County, North Carolina

Mr. S. A. Montague of the Spruce Pine Mica Co., in Spruce Pine, North Carolina, telephoned on DMEA-4973, and wanted to know what the final action would be. I told him that processing was incomplete and that he would have an answer within a week or two.

He wanted to know if the final action was denial, and said if they wanted to diamond drill the property would the DMEA spot the drill holes for them. I stated that the DMEA Field Team would be glad to discuss any of the problems of diamond drilling and the effectiveness of drilling the pegmatite in connection with a re-application. The Field Team could not spot the holes on the ground. He thanked me and said they would wait for the final action.

DEFENSE MINERALS ADMINISTRATION

97023

PRODUCTION EXPANSION DIVISION

PROCUREMENT APPLICATIONS

Name of Company and Address _____

Name of Mine and Location _____

Docket No. DMA - _____ Date received by P.E.D. _____

Metals or Minerals involved _____

Length of Contract (preproduction plus production) _____

Amount of Metals or Minerals in tons, units or pounds _____

Floor price or Guaranteed price and whether or not escalated _____

Maximum Government Commitment _____

Comments on Contract: _____

_____

_____

_____

_____

_____

Date sent to Legal Division _____

Date of Recommendation to D.P.A. for Certification _____

Date Certification sent to G.S.A. by D.P.A. _____

Date signed into Contract by G.S.A. _____

Additional Remarks: _____

_____

_____

_____

_____

NOTE: If application is denied, or if it is recommended for change into exploration, etc., please state under additional remarks.

Interior—Duplicating Section, Washington, D. C.

Signed _____

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

May 14, 1958

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: Field Examination Report - DMEA-4973 (mica); Big Ridge Mine, Haywood County, North Carolina

Enclosed please find the original and two copies of the subject report with copies of the map attached.

The Field Team agrees with the Field Examiners in their recommendation for denial of the application.

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

Wm A Beck
Wm. A. Beck, for V. J. Lynch
Member - Bureau of Mines

FILE COPY
DMEA
RECEIVED MAY 16 1958

5/16	C	220
5/19	[illegible]	[illegible]
5-19	C	220
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On-Site Exam Rpt.

Reviewed by
DMEA OPERATING COMMITTEE
5-19-58
(date)

UNITED STATES

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD EXAMINATION REPORT, REGION V

DMEA-4973 (Mica), BIG RIDGE MINE
Haywood County, North Carolina

DMEA
16 1958

DATE		
5/19	HB	130
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Helmuth Wedow, Jr., Geologist
U. S. Geological Survey

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

May 14, 1958

Reviewed by
DMEA OPERATING COMMITTEE
5-19-58
(date)

FIELD EXAMINATION REPORT

DMEA-4973 (Mica), BIG RIDGE MINE
Haywood County, North Carolina

Applicants: A partnership consisting of: John Blalock, Waynesville, N. C., Clarence Sparks, Celo, N. C., and S. A. Montague, Spruce Pine, N. C.

SUMMARY

Denial of the application for assistance on exploration at the Big Ridge Mine is recommended. The mica cannot be considered as of strategic quality under the present purchasing program, and thus there is no point in granting DMEA assistance for additional exploration. The muscovite is commonly cracked, crinkled, warped, and reeved; it also contains numerous mineral inclusions and intergrowths, chiefly feldspar, quartz, and biotite, as well as much green mottling.

Even if the quality of the mica were not a detracting consideration, the applicant's proposed exploration with a 350-foot tunnel to the northwest limb of the dome-shaped pegmatite body still has little to recommend it. Such a tunnel would enter the pegmatite zone either in or only immediately below an old stoped area. A more satisfactory exploration plan consisting of about 200 feet of level work from the present main adit could show a sizeable reserve block of pegmatite. However, adjacent previous work at the same depth suggests that the muscovite would be of even poorer quality than that produced from higher levels and that the ratio of biotite to muscovite will probably increase with depth.

INTRODUCTION

Location

The Big Ridge Mine is located in Haywood County, North Carolina, about 3.9 miles airline distance from the intersection of U. S. Highway 19 and the Allen Creek Road at Hazelwood. (See 7½' Hazelwood, 175-NE, and Waynesville, 185-NW, quadrangles, N. C., scale 1:24,000.) The mine workings lie chiefly at elevations between 4,500 and 4,700 feet.

Field examination

The field examination of the Big Ridge Mine was made on the morning of April 10, 1958. The examination took about 4 hours including travel-time to and from Hazelwood. Messrs. John Blalock and Clarence Sparks of the applying partnership, and Mr. V. J. Lynch, U. S. Bureau of Mines member of the Region V DMEA Field Team, accompanied the examiners.

Mine history, workings, and production

The Big Ridge Mine is reportedly the first mica mine developed in North Carolina. It was discovered in 1867 and was operated almost continuously from that time until shut down early in 1945. In 1942 J. C. Olson and J. J. Page made a preliminary survey of the mine. Subsequently, in March and April 1944, M. R. Klepper, E. Wm. Heinrich, and L. C. Pray conducted a detailed study of the Big Ridge deposit that culminated in a report by Klepper and Heinrich on April 30, 1944. In August 1944 Heinrich revisited the mine and wrote a short supplementary report. Since 1945 the mine has been idle except for some "groundhogging" or "sniping" in the northeastern part of the mine sometime during the early part of the present purchasing program.

The underground workings at Big Ridge are a vast maze of interconnecting stopes, drifts, inclines, tunnels, and adits that extend for a length of about 650 feet and a width of about 300 feet through a vertical range of about 200 feet. The marginal outline of these workings is more or less oval in plan with the longer axis

oriented about N. 55° E. (see map). In vertical section the workings are assymetrically-arched both longitudinally as well as transversely to follow the irregular dome-shape of the pegmatite body. The studies by Olson and Page and by Klepper and Heinrich present a clear picture of the shape of the pegmatite and the related mine workings.

The total production of the Big Ridge deposit is not known, but about 436,000 pounds of sheet mica and 807,000 pounds of punch mica (total 1,243,000 pounds) were produced in the period 1922-1944. Klepper and Heinrich report that during much of World War II more than 1,000 pounds of "strategic mica" was being produced each month.

One of the present applicants, John Blalock, has attempted to mine mica from the Big Ridge deposit during the current purchasing program. The extent of this work is not known; it is believed, however, that most of it was done in the northern part of the mine (see map). It is reported that in 1952 Mr. Blalock and others had prepared a large lot of mica intended for the G. S. A. Purchasing Depot at Spruce Pine, N. C. Information obtained at the Depot indicated that this entire lot was rejected because of the poor quality of the mica and its failure to meet the specifications of the purchasing program.

GEOLOGY

Klepper and Heinrich summarize the geology of the Big Ridge pegmatite as follows:

"The Big Ridge mine has explored a dome-shaped pegmatite for a length of 650 feet, a maximum width of 300 feet, and over a vertical range of 200 feet. The pegmatite is a rather homogeneous medium- to coarse-grained aggregate consisting dominently of plagioclase, but containing appreciable quartz, muscovite and biotite. Muscovite is more abundant in some parts of the pegmatite than others, but the concentration in almost the entire pegmatite has been great enough to warrant mining. The bottom limit of the pegmatite has never been exposed. The pegmatite and a closely related granitic intrusive rock cut sharply across biotite gneiss that strikes northwest and dips southwest. Most of the 'granite' appears to lie just underneath the pegmatite. The greatest concentrations of muscovite are believed to have occurred in close association with the 'granite'."

The thickness of the pegmatite ranges from about 2 to more than 20 feet. It appears to be thickest along the immediate flanks of the "Backbone" and around the "nose" at the southwest end of the dome. The thinnest areas are mostly down dip on the gently dipping northwest limb (see map).

The muscovite from the Big Ridge mine is ruby, rum, and greenish rum. The quality is reported to be generally lower than that of the Franklin-Sylva district. In past operations the mine-run mica, about 80 percent of the total mica in the pegmatite mined, was removed for examination; the ratio of bench to mine scrap was reported as high. Both the quantity as well as quality vary considerably from one part of the mine to another. The amount of muscovite in the pegmatite averages about 3 percent, varying from about 5 percent around the "nose" in the southwestern part of the mine to probably less than 2 percent in some of the northeastern headings. According to Klepper and Heinrich the Big Ridge muscovite: (1) is commonly warped, crinkled, cracked, and reeved; (2) contains numerous mineral

inclusions and intergrowths, chiefly of quartz, feldspar, and biotite; and (3) has much green mottling ("vegetable stain").

Observation of mica in all of the workings accessible at the time of this examination did not show any mica of sufficient quality to be classed as strategic under the present program. Most of the mica seen has defects similar to those reported by Klepper and Heinrich and mentioned above. In addition, some of the mica seemed locky and not particularly free-splitting. The mica observed was in place in the various headings, as books or block in broken muck, or as loose sheets or thin books scattered throughout the workings. In the lower (post-August 1944) heading from Adit "A" (see map) near the southwest end of the mine most of the muscovite observed was exceptionally locky and contained biotite inclusions to the extent that little or no muscovite pattern could be obtained in processing. Also in this heading, many books of biotite as large as 6 by 14 inches and ½ to 1 inch thick were noted in place in the pegmatite, and a relative scarcity of muscovite is evident. As this heading is probably the deepest exposure of the Big Ridge pegmatite body, and if the conditions therein as noted above are at all representative of the body at depths greater than those mined previously, then it is likely that both the quality and quantity of relatively better grade muscovite will decrease with depth.

Although the examiners make no claim to be "experts" in judging the quality of mica, they feel that the experience gained from various contacts with the specifications of the purchasing depot

is sufficient to be able to judge the acceptance of mica as strategic within fairly narrow limits. Consequently, the examiners are of the opinion that the bulk of the potential mica in the Big Ridge mine that could be produced from future operations will be of inferior grade.

PROPOSED EXPLORATION PROGRAM

The 350-foot adit proposed by the Applicant has essentially no significant target, inasmuch as it would penetrate the pegmatite either in or only immediately below old workings well up on northwest side of the dome and thus give no amount of back from which production could be realized. As pointed out by N. E. Nelson (USGS) in his review of the application, an adit to this sector of the dome would have to be 600 to 800 feet long to be far enough down on the flank for the discovery of a significant reserve area. In either case, vertical shafts with depths less than half the length of such adits would reach the same ground.

In 1944 Klepper and Heinrich suggested exploration as follows: (1) driving Adit "A" on grade or inclined slightly downward on the southeast line near the incline to the upper level of the adit; (2) driving a crosscut beneath the nose from the lower part of Adit "A" to tap the beginning of the northward trend of the northwest limb; and (3) sinking a vertical shaft from the surface to the northeasterly part of the workings. Apparently Item (1) above was attempted prior to closing in 1945 and was the area where the examiners noted the poorer quality muscovite and the large amount of biotite. Item (2) above was

not attempted, and, if the quality of mica were not a major factor, would probably discover, along with an appropriate amount of drift work, a significantly large block of mica-bearing ground. (See map and sections.) However, this would be close to the drift already driven into the deeper block of ground containing poorer quality muscovite and much biotite on the south side of the nose. It is reasonable to expect that similar conditions can be anticipated at the same elevation immediately north of the nose, thus mitigating against the worth of the exploration. Item (3) above was also not attempted, particularly as it had the lowest priority of the three exploration items proposed at the time. It has little to recommend it, also, at the present time, as such a shaft either would encounter old workings, thus requiring haulage up an incline from the headings, or would penetrate ground that would probably have a lower grade or in which the pegmatite would be much thinner. In fact, with the thinning of the pegmatite on the northwest limb and to the northeast, it is reasonable to expect that the pegmatite will pinch out entirely. Although, as mentioned above, some level work beneath the nose might outline a fair-sized block of pegmatite, it would seem that diamond drilling to determine the limits of the dome-like pegmatite body would probably be a more feasible start to an exploration program at the Big Ridge Mine. However, the whole worth of any exploration at Big Ridge is suspect because of the relatively poor quality of the mica under the classification used in the present program.

CONCLUSIONS AND RECOMMENDATIONS

Denial of the application for assistance on the Big Ridge Mine is recommended for reasons as follows:

(1) The exploration proposed by the Applicant has little to recommend it, as it would tap ground close to old workings and would not lead to the discovery of a significant reserve of pegmatite.

(2) A more suitable exploration for pegmatite reserve had been outlined during World War II operations. As part of this exploration had been completed and showed ground with poorer quality muscovite and much biotite, additional exploration in the same general area that could block out a large reserve of pegmatite would encounter essentially the same detractions.

(3) The most significant reason for recommending denial is the generally poor quality of the muscovite. It is reported as poorer than the average of the Franklin-Sylva district. Defects are warping, crinkling, cracking, and reeving. It contains numerous mineral inclusions and intergrowths, chiefly quartz, feldspar, and biotite, and has much green mottling, referred to locally as "vegetable stain". A large lot of mica prepared for sale to the Spruce Pine Purchasing Depot in 1952 was reliably reported rejected in its entirety because of poor quality and failure to meet the specifications of the purchasing program.

(4) Thus, if much or most of the mica that could be produced from the Big Ridge mine in future operations will be of inferior

grade and not classifiable as strategic mica under the present program, there is no point in granting DMEA assistance for additional exploration.

Helmuth Wedow, Jr., Geologist
U. S. Geological Survey

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

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/15	Houk	600
4/16	Selfridge	130
4/16	Houk	130
4/16	Kiilsgaard	130
"	Johnson	110
"	Matthews	100
4/17	[illegible]	220
		600

APR 16 1958 600

Messrs. John Blalock, Clarence Sparks,
and S. A. Montague
c/o Mr. John Blalock
Poplar Street
Waynesville, North Carolina

Re: Docket No. DMEA-4973-Mica
John Blalock, et al.
Big Ridge Mine
Haywood County, North Carolina

Gentlemen:

Your application for assistance in exploring the subject property has been reviewed by the Division of Nonmetallic Minerals of the Defense Minerals Exploration Administration and has been referred to Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region V, Room 13, Post Office Building, Knoxville 2, Tennessee, for further consideration and possibly a field examination.

The Regional Office will contact you at an early date if an examination is to be made. Any assistance you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

(for)

Administrator

LGHouk:rsi 4/15/58
Copy to: Admr. R. File
Operating Committee
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/15	Houk	600
4/16	GCS	130
4	Johnson	110
	Chartenday	100
		220

APR 16 1958

600

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

Re: Docket No. DMEA-4973-Mica
John Blalock, et al.
Big Ridge Mine
Haywood County, North Carolina

Dear Mr. Laurence:

Please review the subject application and arrange for a field examination if you deem it necessary.

Copies of memoranda dated April 9 and 11, 1958, by Mr. N. E. Nelson, USGS, and Mr. W. F. Dietrich, USBM, respectively, relating to the project are enclosed. There is also enclosed a copy of the application for the use of the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (2/3)

Approved:

Frank D. Lamb (2/3)
Member, Bureau of Mines

Thor H. Kiilsgaard (2/3)
Member, Geological Survey

Enclosures 5

LGHouk:rsi 4/15/58
Copy to: Admr. R. File
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

8623

OFFICIAL FILE COPY
DMEA
RECEIVED APR 14 1958

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

4/15	J.L.S.	225
		600

April 11, 1958

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4973 (mica)

Applicant: John Blalock, et al.

Name and Location of Property: Big Ridge Mine, Haywood County, N. C.

Date Application Rec'd. by Br. of Ceramic & Fertilizer Materials: 4/7/58

Comments:

1. A large quantity of ruby mica was produced from this mine during World War II; but applicant states that it has been inactive since 1945.
2. Applicant wishes to explore for mica in area beyond old workings to the west.
3. Applicant does not explain why a 350 foot heading is proposed to reach ground that an 80 foot shaft would reach. Perhaps decision involves a water problem.
4. Past history warrants a look at this mine.

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

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IN REPLY REFER TO:

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

April 9, 1958
Re: DMEA 4973
John Blalock, et al
Big Ridge Mine
Haywood County, North Carolina
$17,125.00 - Mica

Memorandum

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

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

Subject: Review of application

The applicants request assistance in reopening what was once the largest mica mine in the country by driving a 5x7 heading for 350 feet on the west side of the "Backbone". The mine, deservedly, has had much attention and has been very well mapped. (See maps and sections Klepper, Heinrich and Pray, in particular.)

The pegmatite occurs as a very irregular sheet roughly domed as for the northeast quarter of the mine, that is from Section B-B' to the northeast limits of the stoping. Southwest from section B-B', the sheet is anticlinal in form, dipping roughly 30° to 80° on the northwest flank and steep to overturned on the southeast flank. The anticline ends in a 'nose' in which the pegmatite appears to be wrapped around the top of a prong of granite. The whole effect is not unlike that obtained by poking a thumb into a handkerchief or a fist into a blanket. The granite which in places grades into pegmatite and probably is essentially contemporaneous with the pegmatite (Klepper) shows at numerous places on the sections, but the contact like relationship apparent in the nose may not hold throughout the mine.

The reports imply the most and best sheet mica occurred where the pegmatite and granite are in 'contact'. If the relationship is an important factor, further exploration appears warranted especially around and on the flanks of the nose. Probably search has not extended below the level of the main adit.

The adit proposed by the applicants has little or nothing to recommend it, as it would meet the old stoped out area high on the flank of the anticline. An adit on that side of the Back Bone, low enough to be of great value, would be 600-800 feet long.

If the main adit can be rehabilitated at no great expense, the reopening should be considered. Klepper and Heinrich, 1944, recommended continuing the straight part of the adit to an intersection with the pegmatite a distance of perhaps 30-40 feet. They also suggest driving an incline downward from the foot of the short transfer raise connecting the adit and the northeast drift.

If either or both pieces of work have not been done since Klepper and Heinrich recommended them, they are worth consideration.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

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

April 4, 1958

Mr. John Blalock
Poplar Street
Waynesville, North Carolina

Subject: DMEA-4973

Dear Mr. Blalock:

Your application for exploration assistance, dated March 17, 1958 submitted to our office at Knoxville, Tennessee has been assigned Docket Number DMEA-4973 and referred to the Nonmetallic Minerals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region V.

BIG RIDGE MINE

HAYWOOD COUNTY, NORTH CAROLINA

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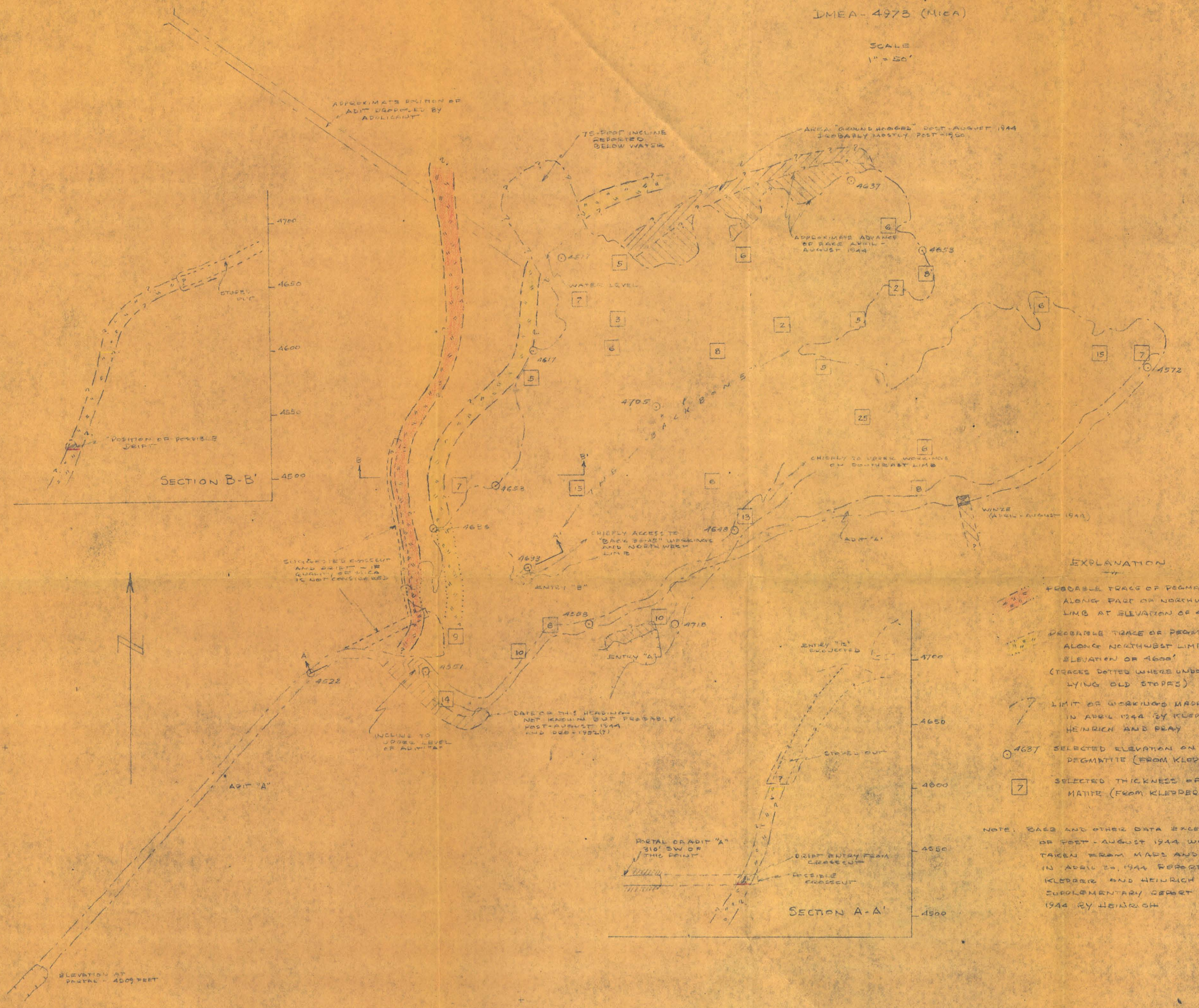
IMEA-4973 (MICA)

SCALE
1" = 50'



EXPLANATION

PROBABLE TRACE OF PEGMATITE ALONG PART OF NORTHWEST LIMB AT ELEVATION OF 4626'

PROBABLE TRACE OF PEGMATITE ALONG NORTHWEST LIMB AT ELEVATION OF 4600'
(TRACES DOTTED WHERE UNDERLYING OLD STOPES)

LIMIT OF WORKINGS MAPPED IN APRIL 1944 BY KLEPPER, HEINRICH AND PRAY

4637 SELECTED ELEVATION ON PEGMATITE (FROM KLEPPER, ET AL.)

7 SELECTED THICKNESS OF PEGMATITE (FROM KLEPPER, ET AL.)

NOTE: BASE AND OTHER DATA EXCEPT POSITIONS OF POST-AUGUST 1944 WORKINGS TAKEN FROM MAPS AND SECTIONS IN APRIL 20, 1944 REPORT BY KLEPPER AND HEINRICH, AND FROM SUPPLEMENTARY REPORT OF AUGUST 1944 BY HEINRICH