DMA Form 1

DEFENSE MINERALS ADMINISTRATION
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DMEA ~~DMA~~ Docket No. 2683

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EXPLORATION PROJECT

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

Routing Slip

Copies to USBM, USGS, and Region VII.

To: Code 600, Rm. 4637 Date 9-2-52

To: Hearne Date

To: Oper Comm Date 12-5-52

To: Date

To: Date

To: Date

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CONTROLLED DOCUMENT

FILE COPY
SURNAME:

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

B/ Noted

Hearne
Houk
Gettach
Kinkel
Hedges
Selfridge

DEC 5 1952

Mr. T. D. Bryson, Jr.
Franklin, North Carolina

Subject: Docket No. DMEA-2683 - Mica
Lyle Knob Mine
Macon County, North Carolina

Dear Mr. Bryson:

Your application for exploration assistance at the Lyle Knob Mine in Macon County, North Carolina, has been reviewed by the Defense Minerals Exploration Administration.

The use of Government funds in an exploration project is considered justified only if evidence is available to show that the project has a reasonably good chance of resulting in the discovery or development of strategic minerals in sufficient quantity to significantly improve the mineral supply for National Defense.

The evidence that you have submitted and other available information does not show that the probability of disclosing minable reserves of strategic mica is sufficiently encouraging to justify Government participation in the proposed work; therefore, your application for assistance is denied.

Your interest in the Defense Minerals Exploration Administration's program to aid the mineral supply for National Defense is appreciated.

Sincerely yours,

(signed) FRANK E. JOHNSON (fw)

ACTING Administrator

LFHearne:gad 12/3/52

JN. 12-5-52

Copy to: Admr. R. File
Docket File
Operating Committee (2)
Field Team, Region VII
Mr. Dietrich, 3526
Mr. Norton, G-232 GSA Bldg.
Mr. Houk

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

December 3, 1952

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Review of Docket No. DMEA-2683 - Mica
T. D. Bryson, Jr.
Lyle Knob Mine
Macon County, North Carolina

9/2/52	Received application dated August 30, 1952.
9/4/52	U.S.G.S. recommends field examination.
9/24/52	U.S.B.M. recommends field examination.
10/2/52	Referred to Region VII for field examination and recommendation.
10/21/52	Field Team recommends contract.
11/17/52	U.S.G.S. concurs in recommendation.
11/17/52	U.S.B.M. concurs in recommendation.
12/3/52	Memo from Nonmetallic Minerals Division to Administrator recommends denial.

Laurance F. Hearne

Laurance F. Hearne
Nonmetallic Minerals Division

FILE COPY
SURNAME:

Hearne
Houk
Deloach

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

December 3, 1952

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Review of Docket No. DMEA-2683 - Mica
T. D. Bryson, Jr.
Lyle Knob Mine
Macon County, North Carolina

9/2/52	Received application dated August 30, 1952.
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Laurance F. Hearne
Nonmetallic Minerals Division

LFHearne:gad

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

Fred
recommends
Wash
Devines

FILE COPY
SURNAME:

Hearne
Hunt
Norton
Dretzell
Selfridge

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

December 3, 1952

Docket No. DMEA-2683 - Mica
T. D. Bryson, Jr.
Lyle Knob Mine
Macon County, North Carolina

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Application in Docket No. DMEA-2683

Recommendation: Denial

On July 30, 1951, a previous application, DMA-1714X, for aid at this same property in the form of bulldozer stripping was denied because it had been extensively explored in former years and the proposed work was preparation for mining rather than exploration.

The current application provides for rehabilitating the existing No. 5 adit, driving its west face an additional 40 feet, and raising 45 feet on a 60 degree incline on the pegmatite up-dip from the east heading or prong of the same adit to connect with the west end of the old No. 1 stope, where sheet mica is reported to have been left in place.

Nineteen feet above the east heading of the No. 5 adit and seventeen feet below the bottom of the No. 1 stope a sub-level has been driven some twenty feet northeast along the pegmatite, with no commercial mica reported. The interval between the barren back of the sub-level and the sheet mica in the toe of the No. 1 stope is so small that any new tonnage discovered from the proposed raise would be negligible, and the only justification for such work would be as a means of exploiting the mica already known to remain in the No. 1 stope, and as a drainage duct for the upper workings. This is clearly development work rather than exploration.

The proposed forty-foot extension of the west heading of the No. 5 adit is estimated to cost $1,400.00, whereas the cost of rehabilitating the adit in preparation for this negligible amount of exploration is estimated at $1,500.00.

The application should be denied because the proposed raise is development work rather than exploration and the cost of the proposed extension of the adit, including its rehabilitation, totalling 1,400 + 1,500/40 = $72.50 per foot, is excessive with respect to the value of the information likely to be obtained.

Laurance F. Hearne
Nonmetallic Minerals Division

LFHearne:gad

Copy to: Admr. R. File
Docket File
Mr. Houk
Mr. Norton, G-232 GSA Bldg.
Mr. Dietrich, 3526

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

Nov 1952
Mr. Hearne

November 28, 1952

Memorandum

To: Lawrence G. Houk, Defense Minerals Exploration Administration

From: Kefton H. Teague

Subject: Lyle Knob Mine, DMEA-2683 (mica)

The enclosed copy of the subject mine map explains the proposed exploration at this deposit more fully than the map which accompanied the Field Team's report.

Kefton H. Teague
Kefton H. Teague
Geologist

Reg VII

Enclosure

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 18 1952

November 17, 1952

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Acting Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-2683, Mica, Lyle Knob Mine,
Macon County, North Carolina

I concur in the field team's recommendation for an exploration project in the amount of $4,925.

Brooke L. Gunsallus

IN REPLY REFER TO:

G-MD-CNM

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

November 17, 1952

Mr. Hearne

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 18 1952

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-2683 (mica)

To: L. G. Houk, Defense Minerals Exploration Administration
From: R. E. Van Alstine, U. S. Geological Survey
Applicant: T. D. Bryson, Jr., Franklin, North Carolina.
Name of property: Lyle Knob mine.
Location of property: 4.9 miles by road N. 12° E. of Franklin, North Carolina.
Date of field team report: October 21, 1952.
Authorship of field team report: K. H. Teague and L. E. Shirley.
Field team's recommendation:

Explore pegmatite from No. 5 or Bonesteel adit; clean out and recondition adit; drive 45-foot raise and 40-foot drift; estimated cost $4,925.

Comments: None.
ACTION SUGGESTED: Follow field team's recommendation.

R. E. Van Alstine

R. E. Van Alstine

F-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 11/7

REFERRED TO:

1. ~~Op Com~~
2. ~~Lundeen~~
3. Case 600
4. Mr Hearne

FOR:

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

REMARKS: Agenda 10/10

Give 40% of 3.00

or $1.20 for truck &

pipe.

Check (X) before the items needing attention.

Frank E. Johnson

(FEJ) *Initials of sender.*

GPO 16—63815-1

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3 1952

Room 13, Post Office Building
Knoxville 2, Tennessee

October 30, 1952

Memorandum

To: Operating Committee, DMEA - Washington

From: Field Team, DMEA - Region 7

Subject: DMEA-2683, Lyle Knob Mine, T. D. Bryson, Jr. Applicant (mica) Field Examination Report.

Enclosed herewith are 4 copies of the field examination report on the subject application, and 6 extra copies of the map. The Field Team is in agreement with the findings and recommendations of the examiners.

We would like to call attention to the item on page 4, "Install track and airlines in 300 feet of adit at $3/ft., $900.00," which is similar to an item in contract E-410 (DMEA 2466, Elk Mica Miners) which we discussed with Mr. Houk by phone yesterday. As written on the short contract form, there is no provision for recovery of the Government's interest in this track and pipe at the end of the project, whereas, other Operators, using the long form have had to repay 90% of the salvage value of track and pipe. Although use of the short form is certainly preferable for contracts of this type, we wonder if it would not be advisable to provide for recovery of the Government's interest in such items.

Mr. Bryson, presumably, will take charge of operations on the project personally, so far as his duties as Solicitor of the 20th Judicial District of North Carolina will permit. We understand that there is no term of court from December 15, 1952 to about February 15, 1953, and that Mr. Bryson will be available during that period. We are of the opinion that he is competent to supervise the job, as he has had previous mining experience, but he should provide a competent foreman to manage the job in case he is not available.

Robert A. Laurence
Robert A. Laurence, Executive Officer, DMEA -Region 7

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

Reviewed by
DMEA OPERATING COMMITTEE
11-10-52
(date)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3, 1952

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM, REGION VII

DMEA-2683, LYLE KNOB MINE (Mica)
Franklin, Macon County, N. C.

By

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

-

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

October 21, 1952

Reviewed by
DMEA OPERATING COMMITTEE
11-10-52
(date)

Report of Field Examination on

DMEA-2683 - LYLE KNOB MINE
(Mica)
Applicant: T. D. Bryson, Jr. Franklin, N. C.

This mine appears to have merit for exploration. The Field Team recommends that exploration be conducted from No. 5 or Bonesteel adit. The work should consist of a 40-foot drift along the hanging wall and a 45-foot raise to connect to and drain the upper openings. nrby

The deposit was examined on October 21, 1952. Mr. T. D. Bryson, Jr., the applicant, accompanied the Field Team on the examination, which required three hours.

The Lyle Knob Mine is located on the western side of Lyle Knob 4.9 miles by road N. 12° E. of Franklin, Macon County, North Carolina. It is accessible from Franklin via U. S. Highway No. 23, Emory Lake Road, and Lyle Knob Road. All of these roads are passable by car.

The Applicant and his associates are competent to conduct the the project. The Applicant owns the property, and one of the property lines is shown on the attached map. Other property lines are outside the area covered by the map.

No buildings or surface facilities are at present on the property. The following description of geology and workings has been taken from a report by John M. Parker, III, and Walter C. Stall of the U.S.G.S., dated July 7,1943:

The first mining on Lyle Knob was done by A. S. Bryson in the late 1870's. The next important operation was from 1899 to 1901 by Thomas Shirk for the Rochester Mica Company, which installed a large steam power plant. This company operated very successfully. The Lyle Knob mine was operated off and on for a number of years about 1910 by Dr. Munch, but with no real success.

During World War I the #5 tunnel was driven by Bonesteel but evidently little mica was obtained. Various short-lived operations seem to have taken place during the next 15 years. About 1935 the big south cut was worked for scrap mica by Duval and Shields. The Siphon cut was worked about 1938 by John Ford. The National Mica Company

started work about July 1942. During the remainder of 1942 about $4,000 work of sheet mica was produced. The mine was closed during January and February 1943. Only a small amount of mica ($1200-$1500 worth) was obtained during 1943. T. D. Bryson, Jr. owns the property on the west side of the ridge crest, and Cora Reid on the east side.

The area is underlain by mica gneiss into which a number of large and small granite pegmatite dikes have been intruded. The gneiss is a dark - to light-gray rock, fine to fairly coarse-grained, usually distinctly banded, and consisting of biotite, muscovite, feldspar, and quartz with occasional pink garnets. The feldspar-quartz bands frequently crosscut the mica bands as veinlets and irregular masses in such a way as to indicate that the gneiss was formed at least in part by granitic injection of a schist.

The main pegmatite at the inner end of the workings is reached by tunnels #1, #4, and #5. It was mined at its upper end from the old Bryson shaft and underground by one large stope with subsidiary stopes and crosscuts. These workings expose the pegmatite intermittently over a strike length of nearly 300 feet and a dip distance of about 100 feet. Instead of having the usual tabular shape, the pegmatite seems to be an elongated lenticular body, shaped like a flattened cigar or bean pod, with an irregularly elliptical cross section. The upper end crops out in the Bryson shaft or pit, and the top edge is also exposed in the big south cut. The thickness of the body(the shorter diameter of the elliptical cross-section normal to the pitch) varies between about 15 and 30 feet, and the height (or longer diameter at right angles) is about four times as great. A number of curves and abrupt bends in strike occur; for example, near the west end of tunnel #1 stope and in the interval between this point and the inner end of tunnel #5, the pegmatite makes 3 right angle bends. Both walls of the body dip steeply (45°-90°) northward in most places, but at two points the lower part of the hanging wall(north side) dips steeply southwest or south. The dip in the unmined interval between the lowest west end of tunnel #1 stope and the raise at the inner end of tunnel #5 must be as low as 25° - 30° on the average, and perhaps flatter in places.

The pegmatite is composed of plagioclase, microcline, quartz, muscovite, biotite, and garnet: a little pyrite is occasionally present. The plagioclase is white and is usually weathered to soft kaolin at least in part; even at the lowest levels of the mine the plagioclase often has a chalky appearance from this alteration. The microcline is light gray, is irregularly perthitic and in part intermixed with quartz. Sericite coats part of the microcline. Microcline is much more abundant than plagioclase, which is ordinarily

closely associated with it. The quartz is light gray and glassy, or white and sugary. The muscovite is a clear rum-brown or ruby color. Most of the blocks are ruled. They range up to about 10 inches in diameter; the largest block extracted during the course of the examination would yield clear sheets 7 by 5 inches. Most of the books are much smaller.

The pegmatite is irregularly zoned, with phases characterized by the principal minerals. The zones are not all present in every part of the pegmatite. Along both foot and hanging walls a mica-bearing zone usually occurs. Here block mica is irregularly scattered in a matrix mainly microcline, with plagioclase and quartz. This zone is one to five feet thick but is frequently too lean to be of consequence.

Further mining to this pegmatite must necessarily be directed to the interval between tunnel #1 and #5 workings. Very little mica shows at the east end of the #5 raise, but in the west face of the #1 stope, large, though cracked and ruled blocks of mica are abundant. The north mica zone in #1 stope probably could be mined to greater depths. The south mica zone seems to be entirely unpromising. Further mining can best be done from the #5 rather than the #1 tunnel, so as to avoid raising the muck in removing it. Because of the existence in this pegmatite of a thick microcline zone, consideration should be given to producing potash feldspar as well as sheet mica from the mine.

The Applicant's proposed program of exploration is unworkable as fresh to semi-weathered rock crop out in the areas where the bulldozer exploration is planned. Furthermore, only the pegmatite described above appears to have possibilities for developing a worthwhile mica deposit.

The Field team is of the opeinion that exploration should be conducted from the Bonesteel or No. 5 adit as indicated on the attached map. The west heading should be driven an additional 40 feet along the hanging wall contact. Some mica is at present exposed in this heading. The proposed raise will be approximately 45 feet long and on a 60° angle from the horizontal. This raise will serve several purposes. It will explore the ground between the two levels, provide drainage from the upper levels, provide ventilation for both the lower and upper levels, and permit extraction of mica which is showing in the upper levels.

The estimated cost of the proposed exploration is as follows:

Clean out and recondition 300 ft. of adit @ $2/ft.	$600.00
Install track and airlines in 300 ft. of adit @ $3/ft.	900.00
Drive 45 ft. of 5' x 7' raise at 60° angle @ $45/ft,	2025.00
Drive 40 feet of 5' x7' drift @ $35/ft.	1400.00
Total Estimated Cost.....	$4925.00

Estimated time required 75 shifts

October 21, 1952.

K. H. Teague, USGS

L. E. Shirley, USBM

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON OFFICE~~

Room 13, Post Office Building
Knoxville 2, Tennessee

October 7, 1952

Mr. T. D. Bryson, Jr.
Attorney-At-Law
Bryson City, N. C.

Re: DMEA-2683, Lyle Knob Mine
(mica)

Dear Mr. Bryson:

I have your letter of October 4, stating that you will not be available to accompany our field examiners during the weeks of October 6, 13, and 27 because of full-time duties in court.

Mr. Teague and Mr. Shirley were planning to contact you while in Franklin this week, and may have done so by the time you receive this letter. If not, I will ask Mr. Teague, on his return here to write you and set a mutually agreeable date for the examination.

Yours very truly,

Robert A. Laurence
Executive Officer, DMEA
Region 7

RAL/am
cc:
Beck
Lynch
Opr. Com.
Files

Bureau of Mines Knoxville
OCT 10 1952

FILE COPY
SURNAME:

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

Hearne
Houk
Johnson
Kimball
Johnson

OCT 2 1952

Mr. T. D. Bryson, Jr.
Franklin, North Carolina

Subject: Docket No. DMEA-2643 - Mica
T. D. Bryson, Jr.
Lyle Knob Mines
Mason County, North Carolina

Dear Mr. Bryson:

Your application in the above-numbered docket has been referred to Mr. Robert A. Lawrence, Executive Officer, DMEA Field Team, Region VII, Room 13, Post Office Building, Knoxville 2, Tennessee, for field investigation and recommendation.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

10-2-52

LFHearne:gad 9/29/52

Copy to: Admin. Reading File
Operating Committee (2)
Docket File
Mr. Dietrich, 3526
Mr. Norton, G-232 GSA Bldg.
Mr. Houk
Field Team, Region VII

FILE COPY
SURNAME:

Hearne
Houk
Mitt

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

OCT 2 1952

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

Subject: Docket No. DMEA-2683 - Mica
T. D. Bryson, Jr.
Lyle Knob Mines
Macon County, North Carolina

Dear Mr. Laurence:

A field examination and recommendation of suitable exploratory work on the property covered by the above-subject application is requested.

Memoranda from the U. S. Geological Survey and the U. S. Bureau of Mines are enclosed.

The location of any proposed work with respect to the property lines should be indicated.

Sincerely yours,

(signed) FRANK E. JOHNSON

Chairman, Operating Committee

F.H. 10-2-52 (B.H.)

Approved:

G. H. Johnson (B.H.)
Member, Bureau of Mines

A. R. Kinkel, Jr. (B.H.)
Member, Geological Survey

LFHearne:gad 9/29/52

Copy to: Admin. Reading File
Operating Committee (2)
Docket File
Mr. Dietrich, 3526
Mr. Norton, G-232 GSA Bldg.
Mr. Houk

Enclosures 2

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

See Mr Heame

September 24, 1952

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-2683, Mica, Lyle Knob Mines, Macon County, Franklin, North Carolina

The Geological Survey (Professional Paper 225, p. 77) tested 273 pieces of mica to be 100 percent of E-1 capacitor quality and color was classified as cinnamon brown, generally acceptable as ruby mica. Bureau of Mines records show $510.21 worth of mica in 1944 and $578.00 worth in 1945, purchased by Colonial Mica. On the basis of past operations and applicant's description of the mine, a field team investigation is recommended.

W. F. Dietrich

W. F. Dietrich

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 24 1952

IN REPLY REFER TO:
G-MD-CNM

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

September 4, 1952

Memorandum

REVIEW OF APPLICATION DMEA-2683 (Mica)

To: L. G. Houk, Defense Minerals Exploration Administration
From: P. L. Weis, U. S. Geological Survey
Applicant: T. D. Bryson.
Name of property: Lyle Knob Mine.
Location of property: Macon County, North Carolina.
Estimated cost of project: $2,372.
Summary of applicant's proposal:

1) Bulldozing off old workings at 4 places.
2) Excavate 2 test pits in each cut, to depths of 10 feet.

Sources of information on applicant's property:

1) Microfilmed reports and maps by Parker, Stoll, Larrabee and Heinrich of the U. S. Geological Survey.
2) Colonial Mica Corporation purchase records.
3) Prof. Paper 225, U. S. Geol. Survey.
4) Prof. Paper (unpublished) on Pegmatites of the Blue Ridge Province, N. C. and Ga., by R. H. Jahns, U. S. Geological Survey.

Comments:

Past production and existing information indicate that this has been one of the better mines in the district in the past. Available geologic reports suggest that applicant's proposed exploration may not be the most favorable location.

RECOMMENDATION:

Refer to the field team.

Paul L. Weis

Paul L. Weis

Mr. T. D. Bryson, Jr.
Franklin
North Carolina

Subject: DMEA-2683
Re: Exploration Assistance
Lyle Knob Mine
September 2, 1952

My dear Mr. Bryson:

The receipt of your application dated August 30, 1952, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2683 and referred to the Non-Metallic Minerals Division.

Kindly refer to DMEA-2683 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

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

25451

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-2683
Metal or Mineral
Date Received 9-2-52
Estimated Cost
Participation (Government %)

INSTRUCTIONS

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

T. D. BRYSON, JR.
FRANKLIN, N. C.

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

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

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

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

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

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

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

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

(*e*) If you own the land, describe any liens or encumbrances on it NONE

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

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

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

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

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

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

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore STRATEGIC RUBY MICA

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

(*c*) The work will start within 2 days and be completed within one months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

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

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated AUGUST 30th, 1952

(Applicant)

By

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

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

3. Legal description of land (held in fee simple by applicant):

In Macon County, N.C., adjoining Mason, et al, BEGINNING at a hickory on top of the mountain near Miller Gap, a corner of the J. M. Dalton heir's land, also a corner of Lyle Knob tract, State Grant No. 3022, and runs with Dalton's line N. 26 E. 12 poles to a walnut (now down) in field; N. 61 W. 46 poles to a chestnut oak stump; S. 24 W/ 3½ poles to a stake, SE corner of old James Raby tract of land; then with said line N. 87 W. 85 poles to a stake, SW corner of said tract; N. 3 E. 25 poles to a stake in line of said tract; N. 88 W 43 poles to a stake on top of the ridge; N. 2 E. 31 poles to a stake on top of the ridge; N. 87½ W. 62 poles to a hickory in a hollow, corner of Hester Welch's land; N. 75 W. 8 poles to a large hickory, corner of Hester Welch's land, also the NW corner of State Grant No. 3022; S 2 W. 78 poles to a stake in N. boundary line of Section 106; N. 87 W ½ pole to a stake, the NW corner of Section 106; then running with Hester Welch's and James Mason's line from the large hickory mentioned above; then still with James Mason's line and the line of Section 106, S. 3 W. 60 poles to a stake in the line of Section 106 and James Mason's corner; then still with James Mason's line N. 87 W. 40 poles to a stake near old road leading to Lyle Knob; then still with James Mason's line S. 3 W. 60 poles to a stake replacing a chestnut, John H. Dalton's corner of State Grant No. 2447 and passing a black gum, an old corner of the Jane Mason land, now a corner of John H. Dalton and James Mason; then S. 87 E. 48 poles to a stake replacing a black oak, old corner of Grant No. 2447 and Grant No. 3022; then with the line of Grant No. 3022 and the Cowee and Millshoal Township lines to the BEGINNING. Containing 276 acres more or less.

4. The property has been worked intermittently in the past by 8 large open-cuts 40 to 275 feet long, 9 tunnels 50 to 340 feet long, at least 14 smaller tunnels, several shafts, and many prospect pits. At least 10 pegmatite dikes appear in the area. They range in thickness from one to 40 feet.
Two years ago an attempt was made to locate a deposit of feldspar and within a period of two weeks more than 4000 pounds of strategic ruby mica was recovered from the Bohnsteel tunnel.
Geological Survey Professional Paper 225, Physical Characteristics of Commercial Sheet Muscovite in the Southeastern United States, reports the following in connection with the Lyle Knob Mines:

Type pf Material (grades) - 2, 5, 6.
Mineral stains - none.
273 pcs. tested. Percent E-1 - - 100.

The property is located within the main mica lead of the district. Few mines in the area have ever produced as the Lyle Knob; very large sheets of clear, hard, flat, free-splitting RUBY mica.
Particular mention is made of the four (4) mines which will be worked under proposed exploration: BUTTERMILK - vein is exposed up to 20 feet wide; SIPHON CUT - vein is 30 to 40 feet wide; WATER HOLE - vein is over 30 feet wide; BOHNSTEEL - vein appears to be close to 50 feet wide. All have plenty of mica in sight and are accessible for examinations.
While the property has been operated considerably in the past it is overlaid with pegmatite and has never been worked with a thought for continued operation. For this reason applicant desires to explore and prepare properly for long time operations to recover existing reserves which have been proven to exist through past tunnels, shafts, pits, etc.
State, county and access roads lead to the mines; 4.9 miles northeast of Franklin, Macon County, N.C., shipping, supply and residence points.
There is sufficient manpower, materials, supplies, water and power available for all purposes.

5. Proposed exploratory work will consist of bulldozing off old workings at the Water Hole, Bohnsteel, Siphon Cut and Buttermilk mines (see sketch attached); followed by 2 test pits in each cut - approximately 10 feet deep. The latter will determine vein dip of each. Although a much greater exploratory program could be conducted on this property, applicant believes exposures as outlined will suffice for him to proceed immediately with operations on a large scale; leading to the release of high percentages of clear, slightly stained, fair and good stained RUBY mica of large patterns, being grades most desired in the present stockpile program.

5. Applicant has been a practicing attorney since 1925 (presently Solicitor in several counties of western North Carolina). In connection with his practise he has had extensive experience in mining, and has had at least five years of actual experience in mining. Associated with him will be a mining foreman who has had wide experience in all phases of the work.

6. ESTIMATE OF COSTS:

Dozer rental, at the Water Hole, Bohnsteel, Siphon Cut and Buttermilk mines; total - 130 hours @ $12.00 per hour	$ 1,560.00
Labor: Working Foreman, 20 days @ $12.00	240.00
8 Miners, 8 days each @ $8.00 per day each	512.00
Misc. Hand Tools, shovels, picks, etc.	60.00
TOTAL	$ 2,372.00

(Applicant will assume all other costs).

- - - -

Upon completion of exploratory work as outlined will place this property in a condition for concentrated OPEN-CUT mining operations; the most econonomical method of mica pegmatite mining, where possible, since it reduces pumping and draining problems to a minimum, and practically eliminates timbering, hoisting and/or heavy tunnel drilling.

Applicant is ready to start this work immediately upon signing contract and requests that the Field Team be permitted to make an early inspection.

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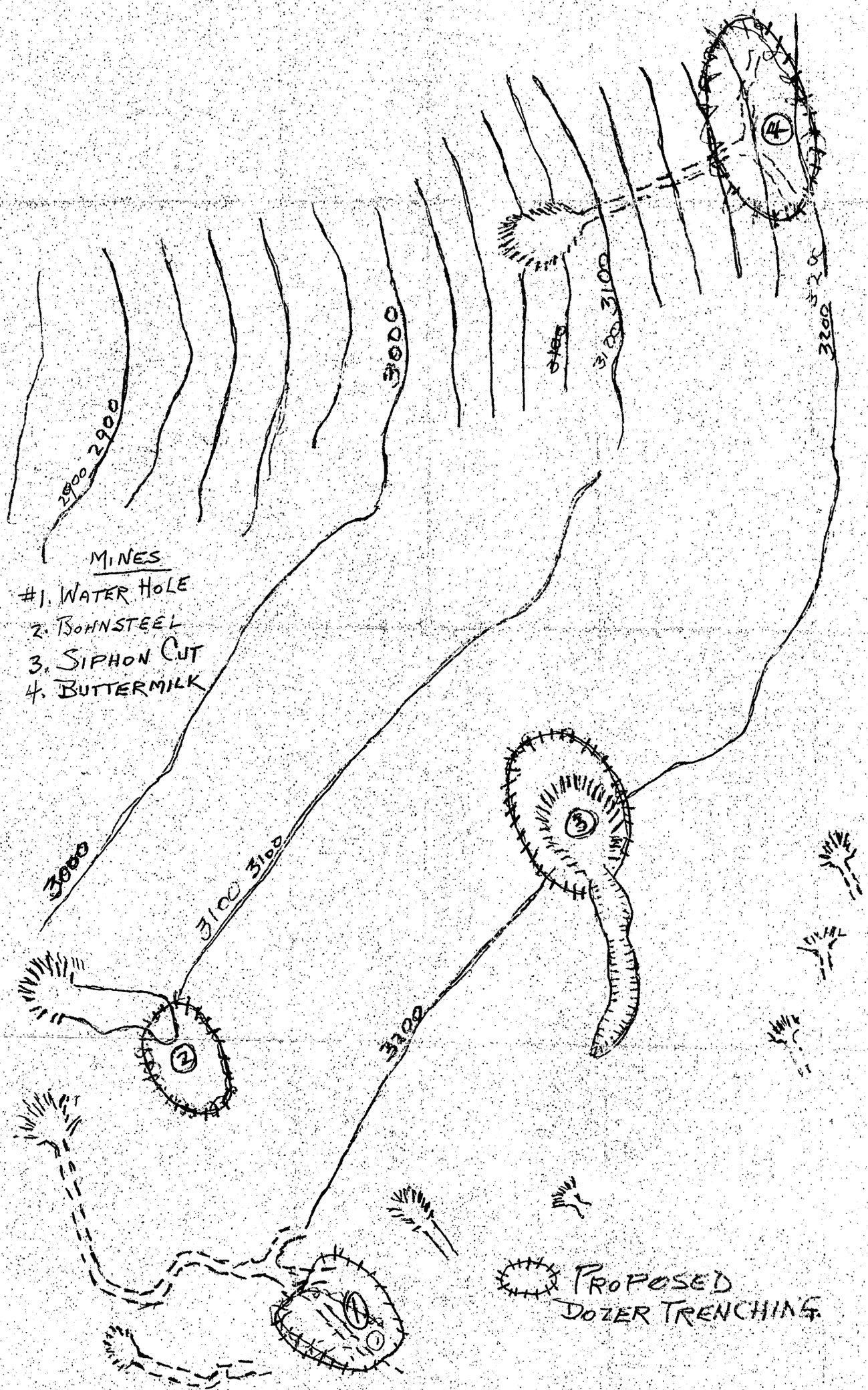
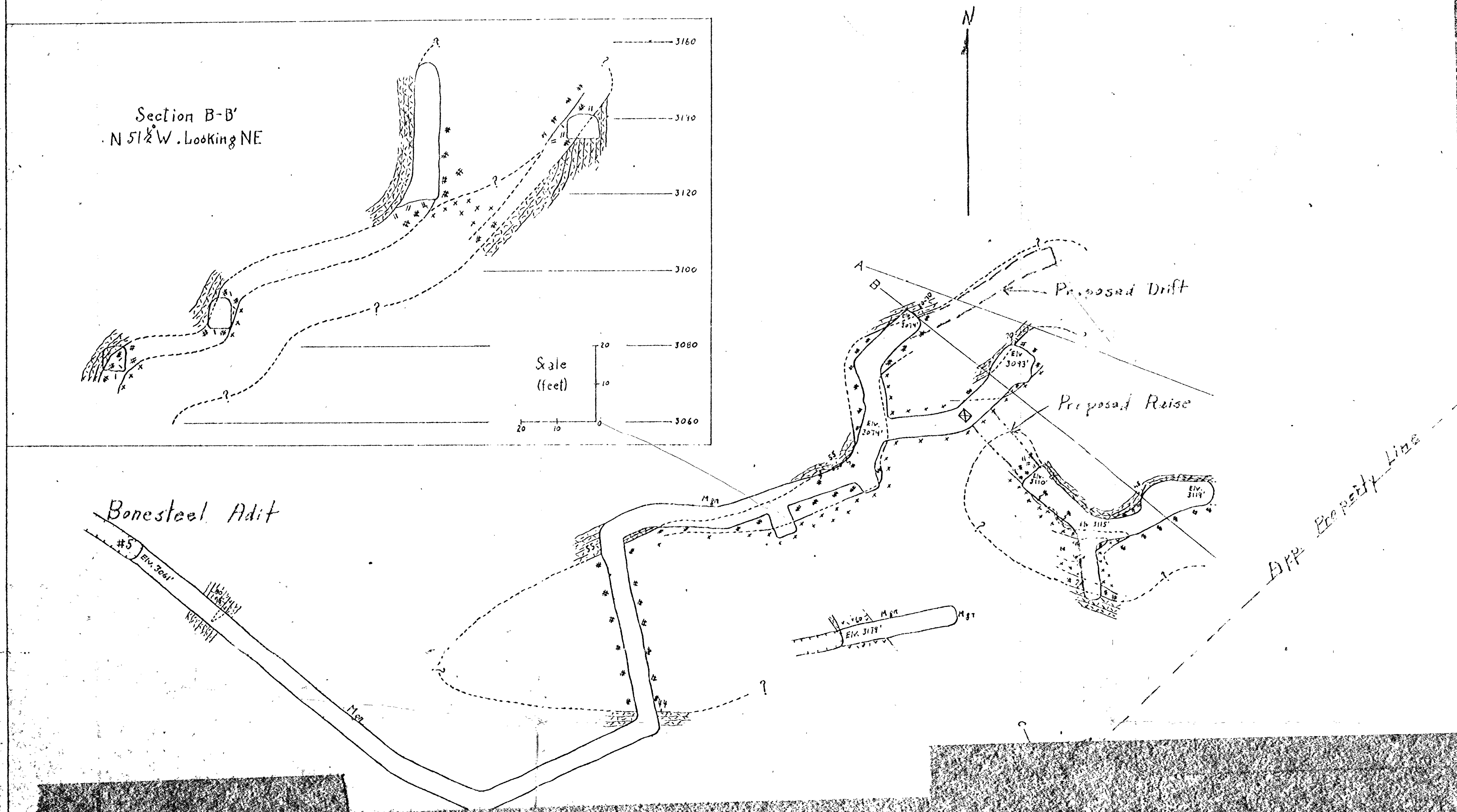

MINES
#1. WATER HOLE
2. BOHNSTEEL
3. SIPHON CUT
4. BUTTERMILK
2900
2900
3000
3100
3100
3200
3000
3100
3100
3200
3200
PROPOSED
DOZER TRENCHING

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STRATEGIC MINERALS INVESTIGATION
PRELIMINARY MAP



EXPLANATION

Mica gneiss - (Mgn)
Pegmatite - Mainly plagioclase; minor quartz, microcline
Mainly microcline; minor quartz, plagioclase
Massive quartz
With sheet muscovite
With scrap muscovite
Strike & dip of foliation or contacts (90°) 50
Surface cuts ~~~ Underground workings
Contacts

Projection of main workings
of projection A-A', N 70° W. Looking NE.

In cooperation with
State of North Carolina
Department of Conservation and Development
Mineral Industries Division

LYLE KNOB MICA MINES
MACON COUNTY, NORTH CAROLINA

UNDERGROUND MAP and SECTIONS
30' 1"
scale

Geology and topography by
J.M. Parker III & W.C. Stoll
Mapped April-May, 1943

DMEA-2683 J.M.R