DMA Form 1

DEFENSE MINERALS ADMINISTRATION
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DMEA ~~DMA~~ Docket No. 2544

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Routing Slip
Copies to USBM, USGS, and Region VII.

To: Code 600, Rm. 4637 Date 5-22-52

To: Mr. Kerestes Date

To: Op. Com. Date 6-9-52

To: Open Com Date 2-2-53

To: Date

To: Date

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To: Date

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INT.-DUP. SEC., WASH., D.C. 98868

FEB 2 1953

Mr. Joseph A. Berry
Vice President
American Talc Company
72 Wall Street
Lockman, New Jersey

Subject: Docket No. [illegible]-234 - [illegible]
Docket No. [illegible]-245 - talc
Cherokee County, North Carolina

Dear Mr. Berry:

Your applications for a [illegible] permit on talc deposits, [illegible], and [illegible] (Docket No. [illegible]-234) and the Copper Line Application (R-245) in Cherokee County, North Carolina, have been reviewed by the Commission's Operating Committee.

The use of Commission funds for exploration projects on unleased public lands may be authorized in exceptional cases when a project has a reasonably good chance of contributing to the discovery or development of strategic minerals in sufficient quantities to significantly improve the internal supply for National defense.

The evidence that you have submitted, and other available information, does not show that the probability of making a significant discovery of marketable stock talc is sufficiently encouraging to justify Government participation in the work proposed in the two applications. Your applications for assistance in these two cases are, therefore, denied.

Your interest in the Nation's strategic mineral exploration administration's program to aid the mineral supply for National defense is appreciated.

Sincerely yours,

U. O. Mittendorf

Administrator

JMRobertson:gmc 1/30/53

Copy to: Admr. - File
Docket File
Operating Committee
Mr. Muhlman, 3530
Mr. Norton, G-232 GSA Bldg.
Mr. Houk

Field Team, Region VII

January 30, 1953

Memorandum

To: Mr. C. C. Mittendorf, Administrator

From: J. T. Robertson, Nonmetallic Minerals Division

Subject: Docket No. DMA-2544 (Block Talc
Moore, Barton and Cornwall Mines
Cherokee County, North Carolina

Applicant: American Talc Company
77 River Street
Hoboken, New Jersey

Correspondent: Joseph R. Ferry, Vice-President

A Closing Review of Docket - A Denial

5/22/52 Received application for exploration assistance in the amount of $16,000.00

5/23/52 Received memo from J. J. Barton, USGS, recommending a field team examination.

6/5/52 Received memo from J. Robert Ruhlman, USBM, recommending a field team examination.

6/10/52 Applicant advised that the application was referred to Robert A. Laurence, Region VII, for field examination.

6/19/52 Memorandum - Operating Committee to Robert A. Laurence, Region VII, requesting that property be examined.

6/27/52 A field team report was submitted from Region VII. The report recommending a denial was written jointly by Mr. A. Beck, Mining Engineer, USBM and Robert A. Laurence, Geologist, USGS.

7/7/52 A memorandum from Paul L. Weis, USGS, recommends following the denial suggested by the Field Team.

7/17/52 Acting Administrator sent a letter to Mr. Joseph R. Ferry, Vice-President of Company stating that processing of application would be held up 90 days awaiting receipt of results of drilling by Hitchcock Corporation which was then diamond drilling the same Murphy Marble Belt for talc.

1/30/53 Memorandum - J. T. Robertson, Nonmetallic Minerals Division, to the Operating Committee. This memorandum explains in some detail the negative results obtained from some 22 holes drilled by the Hitchcock Corporation and recommends that exploration assistance be denied this application.

2/2/53 Administrator's letter to applicant advising him of denial of exploration assistance in this case.

J. T. Robertson
Nonmetallic Minerals Division

JTRobertson:gad 1/30/53

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

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

Memorandum January 30, 1953

To: Chairman, Operating Committee

From: J. T. Robertson, Nonmetallic Minerals Division

Subject: Dockets Nos. DMEA-2544 and DMEA-2545 (Block Talc)
Regal Mine and Moore, Barton and Cornwall Mines
American Talc Company
Cherokee County, North Carolina

Re: A recommendation of denial of the subject applications.

The two applications were received May 28, 1952, and both were referred to the Field Team, Region VII. Examination reports were received in June, 1952 but further processing was deferred until the results of the diamond drilling by the Hitchcock Corporation in the same Murphy Marble belt could be appraised. It was felt that, if the results of the Hitchcock Corporation drilling were negative, then there would be little point in proceeding with American Talc Company's proposed project. The Murphy Marble Belt is the single talc producing area in North Carolina. There is produced in commercial amounts both crayon talc and powdered talc; but no production of talc of high quality suitable for tube spacer such as is desired for stock-piling.

On October 24, 1951, the Hitchcock Corporation obtained an exploration assistance contract, Idm-2194, calling for a program of 10,000 feet of diamond drilling; the depth of holes ranging from 150 ft. to 450 ft. The work proceeded all through the first 10 months of 1952 but was ordered stopped after some 22 holes or about 65% of the total footage had been drilled.

Insofar as stockpile quality talc is concerned, the results of the Hitchcock Corporation drilling was negative. Commercial talc was encountered in seven of the holes drilled but none was disclosed suitable for radio tube spacers.

Four of the best core samples were tested by the G.S.A., Federal Bureau of Supply. The results of the tests as reported by Mr. H. M. Neale, Assistant Chief, Inspection Branch, were as the following. (Quoted from letter 12/24/52.)

> "In accordance with your request, we have made a baking test on four core samples from the Hitchcock Corporation project, labeled 1198-7,8,9, and 10. As is to be expected of stratified talc of this type, the samples cracked along the lines of stratification, making the material unsatisfactory for production of tube spacers."

Using the results of the Hitchcock Corporation project as a basis for judging the potential strategic steatite possibilities of the Murphy Marble Belt as a whole, it would seem, that the entire belt, which is similar in geologic structure, offer slight chance for finding high quality steatite. Furthermore, despite the past considerable production of crayon talc and powdered talc, the area has not contributed tube-spacer talc to the stockpile, now, or in the past.

The Nonmetallic Minerals Division is, therefore, of the opinion that the two applications of the American Talc Company under discussion, DMSA-2544 and DMSA-2545, should both be denied exploration assistance.

A letter of denial is prepared for the Administrator's signature and attached hereto.

J. T. Robertson
Nonmetallic Minerals Division

Note: The Final Field Team Report, Final Operator's Report and Final Audit have not yet been made on the Hitchcock Corporation operation. However, the drilling has been discontinued under the contract and Region VII is preparing the Final Reports.

Because of the discovery of commercial talc, it is our intention, when final reports are all in, to make a Certificate of Discovery on the Hitchcock Corporation project.

JTRobertson:gad 1/30/53

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

Mr. Joseph R. Ferry
Vice-President
American Talc Company
77 River Street
Hoboken, New Jersey

Subject: Dockets No. DMEA-2544 - 2545
Block Talc
Cherokee County, North Carolina

Dear Mr. Ferry:

Please be advised that this office has recently received field examination reports from Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region VII, with respect to the exploration applications referred to above.

Normally, applications are processed and passed upon very shortly after receipt of such field examination reports. However, in the case of these two applications, we have decided to suspend action on them until we have a better understanding of the block steatite possibilities in the Murphy Marble Belt. We hope that the present drilling by the Hitchcock Corporation on the same belt, some six to eight miles farther east, will shed some light on the subject.

The wisdom of drilling for block talc, when there is so little evidence of the presence of block talc, has become very debatable. This office will therefore, defer the processing of both DMEA-2544 and DMEA-2545 for probably ninety days. Thereafter, you will be informed of our later decisions on both applications.

Sincerely yours,

FRANK. E. JOHNSON (sgd) 7/17/52

Acting Administrator
Defense Minerals Exploration
Administration

JWRobertson:mp 7/14/52
cc: Docket File
Adm. Reading File
Mr. Ruhlman, 3071A
Mr. Norton, G-232, GSA Bldg.
Field Team, Region VII
Mr. Houk

IN REPLY REFER TO:

CNM

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

July 7, 1952

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-2544 (Talc)

To: L. G. Houk, Defense Minerals Exploration Administration
From: P. L. Weis, U. S. Geological Survey
Applicant: American Talc Company.
Name of property: Moore, Barton, and Cornwall Properties.
Location of property: Cherokee County, North Carolina.
Date of field team report: June 18, 1952.
Authorship of field team report: W. A. Beck and R. A. Laurence.
Field team's recommendation: Denial.
Comments: None.
ACTION SUGGESTED: Follow field team's recommendation.

Paul L. Weis

Weis:jeh
G-7/7/52
cc: Director's reading file 4212
Branch " " "
DMEA ✓
Norton, USGS, G-230
Weis " G-228

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM, REGION VII

DMEA-2544, AMERICAN TALC CO.,

Moore, Barton, and Cornwall, Properties
(Steatite)
Cherokee County, North Carolina

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951

By

William A. Beck, Mining Engineer
U. S. Bureau of Mines

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

June 18, 1952

Reviewed by
DMEA OPERATING COMMITTEE
7-2-52
(date)

FIELD EXAMINATION REPORT
ON
IMEA-2544-AMERICAN TALC CO.,
(Steatite)
Cherokee County, N. C.
Moore, Barton, and Cornwall Properties.

These three tracts were examined, in company with M. Woodard Glenn and Newman R. Davis, of American Talc Company, on June 18, at the same time as the examination of IMEA-2545.

This group of adjacent tracts is about one-and one-half miles southwest of the Regal tract (IMEA-2545) and lies in the Murphy Marble belt. Talc mines on these tracts are now inaccessible, although the Moore Mine was worked in recent months, and some crayon talc was hauled to the mill at Chatsworth, Georgia. As in the case of most of the Murphy Marble belt, little can be seen on the surface.

The applicant has already done considerable drilling on these 3 tracts, and is now drilling on land to the southwest of the Moore tract, not included in this application. The drilling has developed some commercial talc, but in general, results have been unsatisfactory.

It appears to us that it would be better to concentrate efforts on the Regal tract (IMEA2545) and not to do further work on the Moore, Barton and Cornwall tracts. Mr. Glenn agrees that, if it is necessary to reduce the amount of drilling, he would prefer to drop IMEA- 2544 in favor of IMEA-2545. We do not think the expense of exploring both areas would be justified and therefore recommend denial of IMEA-2544, especially in view of the unsatisfactory results of drilling to date.

June 18, 1952

Wm. A. Beck, USBM

R. A. Laurence, USGS

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

Subject: Dockets No. DMEA-2544 - 2545
Steatite Talc
Cherokee County, North Carolina
(American Talc Company)

Dear Mr. Laurence:

The exploration applications referred to above are to be reviewed, and an examination made of the two properties by the Field Team. Memoranda from the Geological Survey, and the Bureau of Mines, are enclosed for your information.

The present drilling operation in your Region by the Hitchcock Corporation (DMA-1198X) is somewhat similar to the proposed drilling by the American Talc Company and their monthly operating reports may be helpful to the Field Teams in making the estimates of drilling costs for these two projects.

The properties to be examined are close together and may be examined and reported on at the same time.

Sincerely yours,

S - 6/10/52

Chairman, Operating Committee
Defense Minerals Exploration
Administration

Enclosures - 2
Approved:

Member, Bureau of Mines

Member, Geological Survey

JTRobertson:mp 6/6/52
cc: Docket File
Operating Committee (2)
Adm. Reading File
Mr. Ruhlman, 3071A
Mr. Norton, G-232, GSA Bldg.
Mr. Houk

Surname Copy
F E Johnson

JUN 10 1955

Mr. Joseph [illegible]
Vice President
[illegible]
77 Silver Street
[illegible], New Jersey

Subject: [illegible]
[illegible]
[illegible], North Carolina

Dear Mr. [illegible]:

[illegible] applicant [illegible] Mr. [illegible]

[illegible], Executive Officer, [illegible], [illegible], [illegible] Office Building, [illegible], [illegible]

[illegible]

Sincerely yours,

C. O. Mittendorf (for)

[illegible] Administrator
[illegible] Operations Administration
[illegible] Administration

[illegible]
cc: Docket File
[illegible] File
Field Comm, [illegible] (2)
Mr. Dunlap, [illegible]
Mr. Martin, [illegible]
Mr. Zeuk
Operating Committee

C O P Y

June 5, 1952

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: E. Robert Ruhlman, Commodity Specialist
Ceramic and Fertilizer Materials Branch

Subject: DMEA-2544 - 45, Block steatite talc, American Talc Company

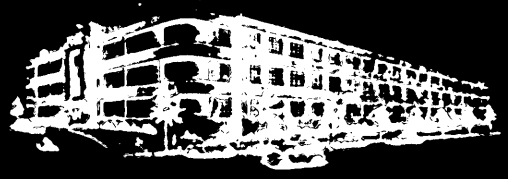
This area is known to have a good grade of talc and indications are favorable as to finding block steatite talc.

A field team investigation is recommended to determine the feasibility of an exploration program.

/s/ E. Robert Ruhlman

C O P Y

ALSIMAG



AMERICAN LAVA CORPORATION

CERAMICS FOR ELECTRICAL AND OTHER TECHNICAL USES STEATITE TITANIA ALUMINA

CHATTANOOGA 5 TENNESSEE

[illegible], [illegible],

Mr. M. [illegible] Glass,
[illegible],
[illegible]
Chattanooga, Georgia.

Dear Mr. Glass:

Thanks for the sample of this [illegible] Kentucky, I. C. I [illegible] the sample to [illegible] old [illegible] in the [illegible] press, [illegible] ... "This is not the quality which we used to get. The [illegible] but we used to get a more [illegible] which did [illegible] firing. This sample will split."

I fired the sample through our [illegible], and I am [illegible] you the fired piece just to show you that he was right. [illegible] lets me [illegible].

Best regards,

Sincerely yours,

AMERICAN LAVA CORPORATION

Jack Thompson
Vice Pres. - Dir. of Sales

[illegible]
enc.

FILE COPY
SURNAME:

Robertson
Houk
Irving
Kimball
Hedges
Selfridge

DEPARTMENT OF THE INTERIOR
March 3, 1849

[redacted]

RIOR
STRATION

WASHINGTON

FEB 2 1953

Mr. Joseph R. Ferry
Vice-President
American Talc Company
77 River Street
Hoboken, New Jersey

Subject: Docket No. DMA-2544 - Talc
Docket No. DMA-2545 - Talc
Cherokee County, North Carolina

Dear Mr. Ferry:

Your applications for exploration assistance on the Barton, Moore, and Cornwall properties (Application No. A-2544) and at the Nagal Mine (Application DMA-2545) in Cherokee County, North Carolina, have 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 a project has a reasonably good chance of resulting in the discovery or development of strategic minerals in sufficient quantities 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 making a significant discovery of strategic block talc is sufficiently encouraging to justify Government participation in the work proposed in the two applications. Your applications for assistance in these two cases are, therefore, denied.

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

Sincerely yours,

C. O. Mittendorf / for S.F. 2-2-53

Administrator

JTRobertson:jnd 1/3/53
Copy to: Admr. R. File
Docket File
Operating Committee
Mr. Muhlman, 3530
Mr. Norton, G-232 GSA Bldg.
Mr. Houk
Field Team, Region VII

FILE COPY
SURNAME:

Robertson
Houk
Norton
Irving

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

Memorandum January 30, 1953

To: Chairman, Operating Committee

From: J. [illegible] Norton, Nonmetallic Minerals Division

Subject: Dockets Nos. DMEA-2544 and DMEA-2545 (Block Talc)
Regal Line and Moore, Barton and Cornwall Mines
American Talc Company
Cherokee County, North Carolina

Rec: [illegible] of the subject applications.

[illegible] applications were received May [illegible], 1952, and both were returned by the field [illegible] were received for [illegible] but further [illegible] deferred until the results of [illegible] the Hitchcock Corporation in the same Murphy Marble belt could be appraised. It was felt that, if the results of the Hitchcock Corporation drilling were negative, then there would be little [illegible] in proceeding with American Talc Company's proposed projects. The Murphy Marble belt is the single talc producing area in North Carolina. There is produced in commercial amounts both crayon talc and powdered talc; but no production of talc of high quality suitable for tube spacer such as is desired for stockpiling.

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Four of the best core samples were tested by the G.S.A., Federal Bureau of Supply. The results of the tests as reported by Mr. H. M. Neale, Assistant Chief, Inspection Branch, were as the following. (Quoted from letter 12/24/52.)

> "In accordance with your request, we have made a baking test on four core samples from the Hitchcock Corporation project, labeled 1198-7,8,9, and 10. As is to be expected of stratified talc of this type, the samples cracked along the lines of stratification, making the material unsatisfactory for production of tube spacers."

Using the results of the Hitchcock Corporation project as a basis for judging the potential strategic steatite possibilities of the Murphy Marble Belt as a whole, it would seem, that the entire belt, which is similar in geologic structure, offer slight chance for finding high quality steatite. Furthermore, despite the past considerable production of crayon talc and powdered talc, the area has not contributed tube-spacer talc to the stockpile, now, or in the past.

The Nonmetallic Minerals Division is, therefore, of the opinion that the two applications of the American Talc Company under discussion, DMA-2544 and DMA-2545, should both be denied exploration assistance.

A letter of denial is prepared for the Administrator's signature and attached hereto.

J. T. Robertson
Nonmetallic Minerals Division

Note: The Final Field Geologist's Report, Final Operator's Report and Final Audit have not yet been made on the Hitchcock Corporation operation. However, the drilling has been discontinued under the contract and Region VII is preparing the final report.

Because of the discovery of commercial talc, it is our intention, when final reports are all in, to make a Certificate of Discovery on the Hitchcock Corporation project.

JTRobertson:gad 1/30/59

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

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

January 30, 1953

Memorandum

To: Mr. C. O. Mittendorf, Administrator

From: J. T. Robertson, Nonmetallic Minerals Division

Subject: Docket No. DMEA-2544 (Block Talc)
Moore, Barton and Cornwall Mines
Cherokee County, North Carolina

Applicant: American Talc Company
77 River Street
Hoboken, New Jersey

Correspondent: Joseph R. Ferry, Vice-President

A Closing Review of Docket - A Denial

5/22/52 Received application for exploration assistance in the amount of $16,000.00

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——— Memorandum - J. T. Robertson, Nonmetallic Minerals Division, to the Operating Committee. This memorandum explains in some detail the negative results obtained from some 22 holes drilled by the Hitchcock Corporation and recommends that exploration assistance be denied this application.

_____ Administrator's letter to applicant advising him of denial of exploration assistance in this case.

J. T. Robertson

J. T. Robertson
Nonmetallic Minerals Division

FILE COPY
SURNAME:

Robertson
Smith
Norton
Irving
Selfridge

UNITED STATES
DEPARTMENT OF THE INTERIOR

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

January 30, 1953

Memorandum

To: Mr. C. O. Mittendorf, Administrator

From: J. T. Robertson, Nonmetallic Minerals Division

Subject: Docket No. DMEA-2544 (Block Talc
Moore, Barton and Cornwall Mines
Cherokee County, North Carolina

Applicant: American Talc Company
77 River Street
Hoboken, New Jersey

Correspondent: Joseph R. Ferry, Vice-President

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_____ Administrator's letter to applicant advising him of denial of exploration assistance in this case.

J. T. Robertson
Nonmetallic Minerals Division

JTRobertson:gad 1/30/53

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

FILE COPY
SURNAME:

Robertson
Smith
Ruhlman
Hedges
Perry
Selfridge
F. Johnson

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

600

JUL 1 7 1952

Mr. Joseph F. Perry
Vice- President
American Talc Company
77 River Street
Hoboken, New Jersey

Subject: Dockets No. DMEA-2544 - 2545
Block Talc
Cherokee County, North Carolina

Dear Mr. Perry:

Please be advised that this office has recently received field examination reports from Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region VII, with respect to the exploration applications referred to above.

Normally, applications are processed and passed upon very shortly after receipt of such field examination reports. However, in the case of these two applications, we have decided to suspend action on them until we have a better understanding of the block steatite possibilities in the Murphy Marble Belt. We hope that the present drilling by the Mitchcock Corporation on the same belt, some six to eight miles farther east, will shed some light on the subject.

The wisdom of drilling for block talc, when there is so little evidence of the presence of block talc, has become very debatable. This office will therefore, defer the processing of both DMEA-2544 and DMEA-2545 for probably ninety days. Thereafter, you will be informed of our later decisions on both applications.

Sincerely yours,

7/17/52

(signed) FRANK E. JOHNSON

Acting Administrator
Defense Minerals Exploration
Administration

JTRobertson:mp 7/14/52
cc: Docket File
Adm. Reading File
Mr. Ruhlman, 3071A
Mr. Norton, G-232, GSA Bldg.
Field Team, Region VII
Mr. Houk
Operating Committee

IN REPLY REFER TO:
CNM

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

July 7, 1952

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-2544 (Talc)

To: L. G. Houk, Defense Minerals Exploration Administration
From: P. L. Weis, U. S. Geological Survey
Applicant: American Talc Company.
Name of property: Moore, Barton, and Cornwall Properties.
Location of property: Cherokee County, North Carolina.
Date of field team report: June 18, 1952.
Authorship of field team report: W. A. Beck and R. A. Laurence.
Field team's recommendation: Denial.
Comments: None.
ACTION SUGGESTED: Follow field team's recommendation.

Paul L. Weis
Paul L. Weis

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 7 - 1952

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

Room 13, Post Office Building
Knoxville 2, Tennessee

June 24, 1952

Memorandum

To: Operating Committee, DMEA

From: Field Team DMEA-Region VII

Subject: Field Examination Report on DMEA-2544, American Talc Co. (Steatite).

Enclosed herewith are 4 copies of Field Examination Report on the subject application. This report should be considered along with DMEA-2545, also being submitted today.

It is our recommendation that DMEA-2544 be denied, but that some work be done on DMEA-2545.

Robert A. Laurence

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951

Wm A Beck

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

DMEA-VV-44

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM, REGION VII

DMEA-2544, AMERICAN TALC CO.,

Moore, Barton, and Cornwall, Properties
(Steatite)
Cherokee County, North Carolina

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951

By

William A. Beck, Mining Engineer
U. S. Bureau of Mines

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

June 18, 1952

FIELD EXAMINATION REPORT
ON
DMEA-2544-AMERICAN TALC CO.,
(Steatite)
Cherokee County, N. C.
Moore, Barton, and Cornwall Properties.

These three tracts were examined, in company with M. Woodard Glenn and Newman R. Davis, of American Talc Company, on June 18, at the same time as the examination of DMEA-2545.

This group of adjacent tracts is about one-and one-half miles southwest of the Regal tract (DMEA-2545) and lies in the Murphy Marble belt. Talc mines on these tracts are now inaccessible, although the Moore Mine was worked in recent months, and some crayon talc was hauled to the mill at Chatsworth, Georgia. As in the case of most of the Murphy Marble belt, little can be seen on the surface.

The applicant has already done considerable drilling on these 3 tracts, and is now drilling on land to the southwest of the Moore tract, not included in this application. The drilling has developed some commercial talc, but in general, results have been unsatisfactory.

It appears to us that it would be better to concentrate efforts on the Regal tract (DMEA2545) and not to do further work on the Moore, Barton and Cornwall tracts. Mr. Glenn agrees that, if it is necessary to reduce the amount of drilling, he would prefer to drop DMEA- 2544 in favor of DMEA-2545. We do not think the expense of exploring both areas would be justified and therefore recommend denial of DMEA-2544, especially in view of the unsatisfactory results of drilling to date.

June 18, 1952

Wm. A. Beck, USBM

R. A. Laurence, USGS

FILE COPY
SURNAME:

Robertson
Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

600

JUN 10 1952

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

Subject: Dockets No. DMEA-2540 - 2545
Steatite Talc
Cherokee County, North Carolina
(American Talc Company)

Dear Mr. Laurence:

The exploration applications referred to above are to be reviewed, and an examination made of the two properties by the Field Team. Memoranda from the Geological Survey, and the Bureau of Mines, are enclosed for your information.

The present drilling operation in your region by the Hitchcock Corporation (DMA-1198X) is somewhat similar to the proposed drilling by the American Talc Company and their monthly operating reports may be helpful to the Field Team in making the estimates of drilling costs for these two projects.

The properties to be examined are close together and may be examined and reported on at the same time.

Sincerely yours,

(signed) FRANK E. JOHNSON (JB)

Chairman, Operating Committee
Defense Minerals Exploration
Administration

Enclosures - 3
Approved:

J. H. Hedges (JB)

Member, Bureau of Mines

D. M. Lemmon (JB)

Member, Geological Survey

JTRobertson:mp 6/6/52
cc: Docket File
Operating Committee (2)
Adm. Reading File
Mr. Ruhlman, 3071A
Mr. Norton, G-232, GSA Bldg.
Mr. Houk

FILE COPY
SURNAME:

Robertson
Houk

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

600

Mr. Joseph R. Ferry
Vice-President
American Talc Company
77 River Street
Hoboken, New Jersey

Subject: Dockets No. DMEA-2544 - 2545
Steatite Talc
Cherokee County, North Carolina

Dear Mr. Ferry:

Your applications are being referred to Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region VII, Room 13, Post Office Building, Knoxville 2, Tennessee, for further information.

Sincerely yours,

-S- 6/10/52

Acting Administrator
Defense Minerals Exploration
Administration

JTRobertson:mp 6/9/52
cc: Docket File
Adm. Reading File
Field Team, Region VII (2)
Mr. Ruhlman, 3071A
Mr. Norton, G-232, GSA Bldg.
Mr. Houk
Operating Committee

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

June 5, 1952

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: E. Robert Ruhlman, Commodity Specialist
Ceramic and Fertilizer Materials Branch

Subject: DMEA-2544-45, Block steatite talc, American Talc Company.

This area is known to have a good grade of talc and indications are favorable as to finding block steatite talc.

A field team investigation is recommended to determine the feasibility of an exploration program.

E Robert Ruhlman

E. Robert Ruhlman

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 5 1952

IN REPLY REFER TO:
G-MD-JJN

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

May 23, 1952

Memorandum

REVIEW OF APPLICATION DMEA-2544 (Block talc)

To: L. G. Houk, Non-Metallic Minerals Division, DMEA
From: J. J. Norton, U. S. Geological Survey
Applicant: American Talc Company.
Name of property: (1) Barton (2) Moore (3) Cornwall.
Location of property: Cherokee County, North Carolina.
Estimated cost of project: $16,000.
Summary of applicant's proposal:
20 diamond drill holes 250 to 300 feet deep.
Sources of information on applicant's property:
We have no data to add to what has been submitted by applicant.
Comments:
1. Field examination and a conference between field team and applicant will be necessary.
2. If the properties show promise, a project similar to DMEA-1198 would be warranted.
3. Field team's experience with Project DMEA-1198, a few miles southwest of the American Talc properties, should have a bearing on what to do with this application.
4. Caution should be exercised to avoid doing more exploration than is warranted in this area.
5. Applicant's cost estimates seem low.
RECOMMENDATION:
Refer to field team.

DEPARTMENT OF THE INTERIOR
Bureau of Mines
Washington
MAY 23 1952

J. J. Norton
J. J. Norton

DMEA-2544

AMERICAN TALC COMPANY

MINERS AND MANUFACTURERS

CHATSWORTH, GEORGIA

QUALITY TALC FOR ALL PURPOSES

May 2, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 22 1952

Defense Minerals Production Authority
Washington 25, D. C.

Gentlemen:

Attached is a request for a government exploration loan to core drill in North Carolina for block steatite talc of strategic quality.

Data requested on government forms MF-100 and MF-103 is attached.

Briefly request is made for $16,000. to be used in sinking 20 core drills on the Moore, Barton & Cornwall Property located in the Murphy Marble Belt in North Carolina.

It is requested that favorable consideration be given to this application and although year round operations are possible in the area, as much advantage as possible would like to be taken of the good summer months on this work.

This letter also authorizes Miss A.J.Gitter to discuss this application with any federal agency concerned.

Thank you for your cooperation.

Very truly yours,

AMERICAN TALC COMPANY

Joseph R Ferry

Joseph Ferry, Vice Pres.

JR/ea

H. A. Barton (SEAL)

Ada Barton (SEAL)

AMERICAN TALC COMPANY, INCORPORATED

BY M. Woodard Glenn
PRESIDENT

ATTEST:

Regina B. Glenn
SECRETARY

NORTH CAROLINA,

CHEROKEE COUNTY.

I, A. J. Hembree, a Notary Public in and for said State and County, do hereby certify that H. A. BARTON and wife, ADA BARTON Personally appeared before me this day and severally acknowledged the due execution by them of the foregoing and annexed Contract and Option Agreement for the purposes therein expressed.

Witness my hand and Notarial Seal, this the 4th day of ~~November~~ Dec, 1951.

A. J. Hembree
NOTARY PUBLIC

My commission expires:
My Commission Expires Mar. 17, 1953

STATE OF GEORGIA,

COUNTY OF Murray.

I, Carl B. Tankersley, a Notary Public of said State and County, certify that Regina B. Glenn personally came before me this day and acknowledged that he is Secretary of AMERICAN TALC COMPANY, INC., 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 _____ self as its Secretary.

Witness my hand and Notarial Seal, this the 6th day of December, 1951.

Carl B. Tankersley
NOTARY PUBLIC

My commission expires:
as June 8, 1952

NA,

s of Carl B. Tankersley, a Notary Public, Justice of the Peace of Murphy in Cherokee County, North Carolina County, in the State of Georgia, attested by his Notarial seal, is adjudged are ument and certificate be registered.

In Murphy, N. C., this the 10 day of December, 1951

[illegible], Clerk Superior Court.

NORTH CAROLINA
CHEROKEE COUNTY

This indenture, made this the 22 day of [illegible], 1950, by and between J.B. Moore and wife, Bessie Moore, of [illegible]okee County, North Carolina, and Francis T. Glenn, of Dalton [illegible]rgia;

Witnesseth: That the said J.B. Moore and wife Bessie [illegible]oore have leased and demised unto the said Francis T. Glenn, [illegible] the said Francis T. Glenn has hired from the said J.B. Moore and wife, Bessie Moore, all mining privileges for talc upon the lands hereinafter described, which said mining privileges were reserved unto the said J.B. Moore and wife Bessie Moore in conveyance by them to Columbia Marble Company, dated September 3, 1949, together with the additional mining rights and privileges upon two additional acres of land not incorporated in said Columbia Marble Co. deed, upon which the dwelling house of J.B. Moore and wife, Bessie Moore is now situate, said additional two acres being described in a deed from J.H. McGee and D. Witherspoon, receivers of Cherokee Iron and Marble Company, it being the intention to lease the right to mine and remove talc from the lands described in the deed dated September 3, 1949, from J.B. Moore and wife, Bessie Moore, to Columbia Marble Company, as well as the lands described in the deed from J.H. McGee and D. Witherspoon, receivers, above referred to, to have and to hold unto the said Francis T. Glenn, his successors and assigns for a period of five years from March 1, 1950, with privilege of extension for additional period of five years, at the rentals and subject to all the terms, covenants and conditions as agreed and as embodied in a lease of even date herewith. This is a memorandum of lease of even date herewith which said lease has not yet been executed, it being the intention of said parties by this memorandum to bind themselves pending the preparation and execution of the contract of lease.

In witness whereof, the parties hereto have caused this instrument to be executed under their signatures and seals the day and year first above written.

ATTEST:

N. B. Dunn

B. B. Ethridge

J. B. Moore (SEAL)

Bessie B. Moore (SEAL)

Francis T. Glenn (SEAL)

NORTH CAROLINA,

CHEROKEE COUNTY.

THIS CONTRACT AND OPTION AGREEMENT, made and entered in this 27th day of November, 1951, by and between

H. A. BARTON and wife, ADA BARTON, of the County of Cherokee and State of North Carolina, hereinafter named "LESSORS,"

and

AMERICAN TALC COMPANY, INC., a Corporation of the State of Georgia, having an office and principal place of business at Chatsworth, Georgia, hereinafter termed "LESSEE,"

W I T N E S S E T H:

That Lessors, for an in consideration of the sum of ONE DOLLAR and other valuable considerations to them in hand paid by Lessee, the receipt of which is hereby acknowledged, do hereby grant, devise and lease unto said Lessee, its successors and assigns, from the date hereof until August 1st, 1952, the sole and exclusive right of entering upon, exploring for, prospecting and diamond drilling for, and doing all necessary or proper exploratory work in seeking to find merchantable talc, on, in, or under the following described tract of land in Murphy Township, Cherokee County, North Carolina, to-wit:

Lying in Murphy Township, Cherokee County, 2.2 miles from Murphy, North Carolina, on State Highway No. 10, U. S. 19, BEGINNING on N. E. corner on Iron pin set in concrete 30 feet from center line of said highway No. 10, U. S. No. 19, and runs N. 60 degrees and 30 " West 399.3 feet to another iron pin set in concrete; thence N. 24 degrees and 52' W. 399.0 feet to another iron pin set in concrete; thence N. 17 degrees and 51' E. 289.2 to another iron pin set in concrete; thence N. 32 degrees and 59 W. 306.1 feet to another iron pin set in concrete being 100 feet from center line of Southern Railroad, this being right of way of Southern Railroad; thence S. W. with this right of way of said railroad 771.0 feet to another iron pin set in concrete; thence S. 45 degrees and 02' 00" East 1172.9 feet to another iron pin set in concrete on the right of way of N. C. Highway No. 10, U. S. 19; thence with this right of way 337.0 feet, more or less to the beginning, containing 11.4 acres, more or less.

And also conveying to Lessee all such right and title as Lessors may have to the strip of land lying between the above described lands and the Southern Railway tracks, and covered by the right of way of the Southern Railway Company.

EXCEPTING AND RESERVING, for the use and benefit of the Receivers of the Cherokee Iron & Marble Company and their successors, heirs and assigns, the right to use the old public Road across the tract of land above mentioned, and near the tracks of the Southern Railway Company, as means of access to the other lands of the Cherokee Iron and Marble Company, its successors and assigns, and also the right to use as such of means of access any road which said Grantors may have constructed over said lands leading away from State Highway No. 10.

Lessors, for the purposes aforesaid, have given and granted, and do hereby give, [illegible] unto Lessee, its successors and assigns, during said period until August 1, 1952, full rights of ingress, egress and regress into, upon and over the said lands above described for the purpose of exploring and prospecting for, and diamond drilling for merchantable talc on or under any or all parts of said lands.

Lessors, for the said consideration, have further given and granted, and do hereby give and grant unto Lessee, its successors and assigns, the exclusive option and right to be exercised at any time on or before August 1, 1952 of leasing from Lessors the sole and exclusive right to prospect for, mine, refine and remove all merchantable talc, in, upon, under and from the said lands hereinabove described, upon the terms hereinafter set out, and in the event Lessee exercises this option, it is mutually agreed by and between the parties hereto that said lease, in addition to the formal parts and names of the parties, shall contain the following provisions, and none other:

1. That the term of this lease is for a period of Five (5) years from August 1, 1952, with option to extend, as hereinafter provided, together with privilege of termination, as hereinafter set forth.

2. That Lessee, its successors and assigns, during the term of this lease, and any extension or extensions thereof, has been given and granted the exclusive and uninterrupted right of prospecting for, drilling for, mining, refining, and removing talc from the lands above described, together with full rights of ingress, regress and egress to, into, upon, through, under and from said lands, with the right to use all existing roads, and the right to construct any and all necessary or convenient roads, tram-roads, flumes or chutes necessary or convenient to be used in connection with such exploring and mining operations; together with the right and privilege, free of further charge, to use water on and under said land in necessary quantities for all purposes connected with said mining operations necessary to complete enjoyment of the rights and privileges herein granted for operating, mining, refining, preparing and removing the talc on and under said lands for the market; together with the further right and authority to erect all necessary buildings and structures on said lands necessary or convenient to be used in connection with such mining operation, and also the right to set up and use on said lands machinery and other mining equipment, together with the right, upon determination or expiration of this lease, or

any extension or extensions thereof, to remove said machinery, equipment, buildings and structures from said lands; together with the right to make all necessary mining holes, excavations, shafts and dumps.

3. That Lessors do hereby give Lessee, its successors and assigns, for and during the term of this lease , and any extension or extensions thereof, the right to erect such buildings, plants and structures, to build such roads, railroads, tram-ways, and such trams, flumes and chutes as Lessee may determine to be needed, necessary or convenient for carrying on mining operations and preparing the products thereof for the Market, together with the right to make dumps, excavations, and create dump piles where necessary, all without being held liable for damages.

4. Lessee has agreed and does hereby agree to pay Lessors, their nominee or personal representative, during the continuance of this lease, or extension or extensions thereof, as rental, royalties as follows:

THREE ($3.00) DOLLARS per ton of TWO THOUSAND (2,000) pounds for clear, unstained talc, and ONE and 50/00 ($1.50) Dollars per ton of TWO THOUSAND (2,000) pounds for broken, stained, or otherwise contaminated or yellow talc removed from said lands.

5. It is further mutually agreed by and between the parties hereto that there will be no minimum royalties charged or payable until after August 1, 1952, unless actual mining operations commence prior to said date, if and when, only the royalties at the above specified rates shall be charged and paid on talc actually removed from said lands; but after August 1, 1952, Lessee shall pay Lessors a minimum royalty of Fifty ($50.00) Dollars per month commencing as of August 1, 1952 and continuing during the term of this lease and any extension or extensions thereof for each month this lease remains in force, but the Lessee, however, shall have the privilege during any succeeding month or months of removing free from royalty a sufficient quantity of talc over and above the quantity required to yield the minimum royalty for said months at the rate of tonnage royalty hereinabove provided for in Article Four hereof, to reimburse it for any deficiency that may have occurred in any preceding month or months; PROVIDED, HOWEVER, that for the purposes of the foregoing provision each twelve months period shall constitute a fiscal year and an independent unit and no

payments in excess of the minimum annual royalty for any one year shall be credited against a deficiency in any subsequent year.

6. Lessee agrees to weigh all talc removed from said lands under this lease on standard scales and to keep accurate records of said weights and accurate books and records showing the amount of talc and grade of talc removed from said lands. These records shall be the basis on which Lessee shall settle with Lessors for talc removed, and Lessors shall have access at all reasonable times to such books and records of Lessee.

7. Lessee agrees to pay Lessors on the 15th day of each month at the said rates per ton for all talc removed during the preceding calendar month: PROVIDED, HOWEVER, if the royalties at said rates per ton for said month shall not amount to as much as the minimum royalty, then Lessee in lieu of such tonnage royalty for such month shall pay the minimum royalty.

8. Lessors do hereby agree that Lessee, its successors and assigns, shall have and hold the said rights, privileges, and easement and estate here granted for and during the said term of Five years from August 1, 1952, unless sooner terminated.

9. That if Lessee has paid all installments of rental and royalties theretofore due and has done and performed all matters and things herein specified to be done and performed by it, it may at any time terminate this lease by giving to Lessors Thirty (30) days written notice of its intention so to do.

10. If all installments of rental and accrued royalties theretofore due have been paid and all other conditions of this lease have been properly complied with by Lessee, the Lessee may, at its option, extend this lease for not more than two (2) additional periods or terms of Five (5) years each, by giving to Lessors by registered mail at their last known address written notice of its intention to extend. Said notice to be given at least Thirty (30) days prior to the end of the term. Should Lessee elect to exercise this option and extend the term of this lease, as hereinabove provided, the first extended term shall be for a period of Five (5) years and shall commence at the expiration of the term herein granted. If at the end of the first extended term Lessee should elect to extend this lease for a second additional period of Five (5) years, then and in such event said second extension or extended term shall begin

at the expiration of the first extension or extended term. In the event of such extension or extensions all the terms and conditions of this lease herein set out shall continue in full force and effect.

11. It is expressly agreed that if Lessee shall neglect or fail to make any payment of rental or royalty when due, or neglect to do or perform any matter or thing herein agreed to be done or performed by it, and shall remain in default thereof for a period of Thirty (30) days after written notice sent by registered mail to its last known mailing address calling attention to such default, Lessors may declare this lease terminated and cancelled and take possession of said premises without prejudice to any other legal remedy that they may have on account of such default.

12. In the event Lessee shall elect to exercise the option herein granted notice of such intention shall be given to Lessors by registered mail on or before August 1, 1952.

13. Any and all notices herein called and provided for may be given by registered mail addressed to the party or parties for whom such notice was intended at their or its last known mailing address. All such notices shall be deemed to have been given and received as of the date same was mailed.

14. Lessors, for themselves and their heirs, executors, and administrators, covenant and agree to and with Lessee, its successors and assigns, that they own said lands above described in fee simple, and that the said lands, together with the mining interest thereon, are free and clear and discharged from any and all encumbrances, and that they have full right and power to make this lease and that they do hereby warrant unto Lessee, its successors and assigns, the said mining rights, easements and privileges herein granted, and that they will forever warrant and defend the title to the property, rights, privileges and easements hereinbefore described and conveyed against the lawful claims of all persons whomsoever.

15. Lessors, for themselves, theirheirs, executors, and administrators, covenant and agree to and with Lessee, its successors and assigns, to place Lessee in the peaceful possession of said land for the purposes aforesaid, and do covenant and agree to protect Lessee against any interference with its mining operations by their tenant or tenants, or any other person claiming by, through, or under them.

16. The royalties or minimum rental shall be payable to Lessors, their personal representative, nominee, or assigns, by check or draft, and such payments

may be made at the Citizens Bank and Trust Company, Murphy, North Carolina, or its successors, on or before the 15th day of each calendar month during the term of this lease, or extension or extensions thereof; notwithstanding the death of Lessors, or their successors in interest, the payment or tender of rentals in the manner provided above shall be binding on the heirs, devisees, executors and administrators of such persons, it being expressly understood and agreed that this lease shall enure to to benefit of and be binding upon the parties hereto, their heirs, executors, administrators and assigns.

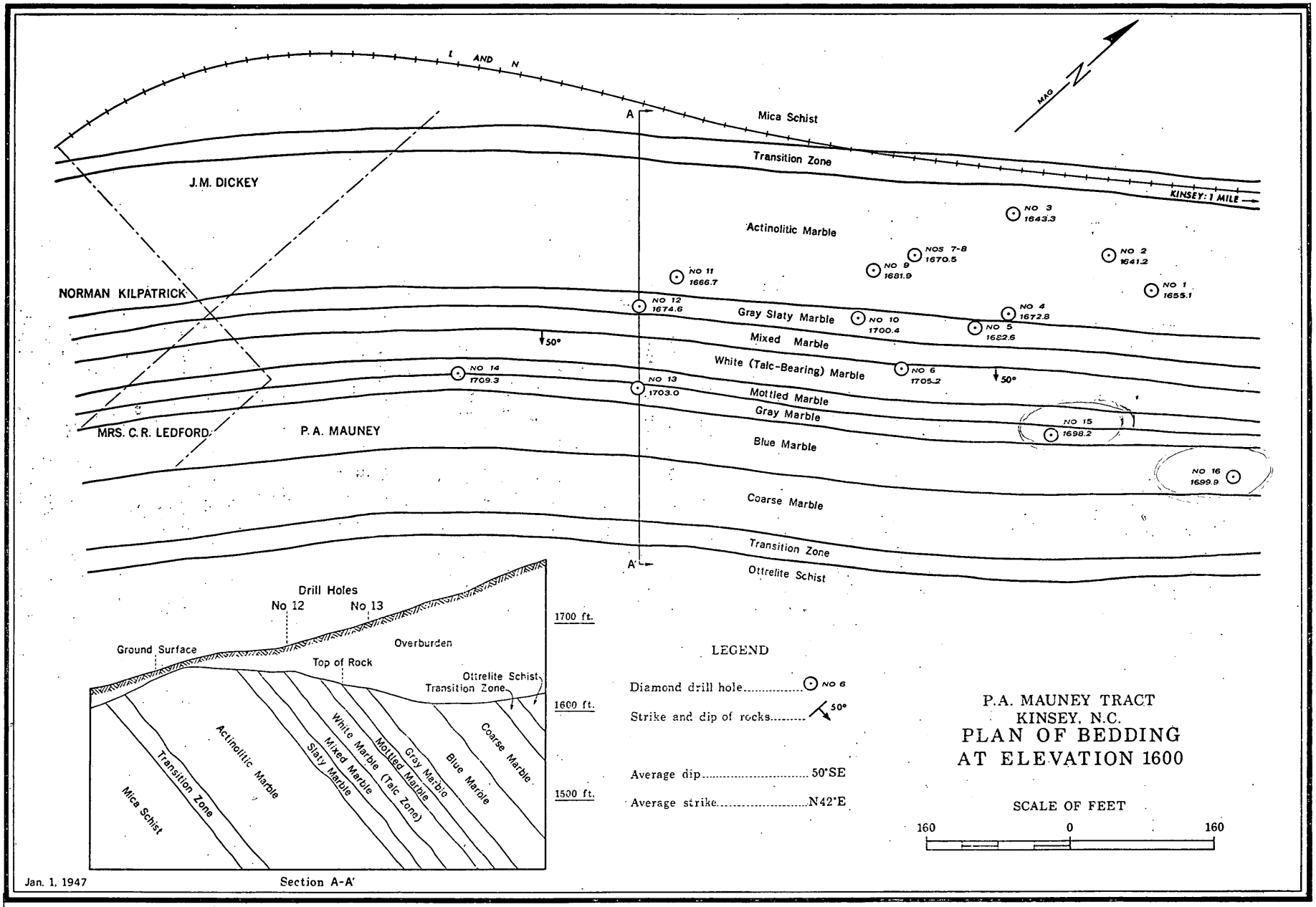
17. During the term of this lease, Lessors shall pay all taxes and assessments upon the land covered by this lease, and Lessee shall pay all taxes upon the buildings and machinery placed upon said land by it as herein provided.

18. It is expressly agreed that if at any time during the term of this lease Lessee, or its successors or assigns, should be adjudged bankrupt or insolvent by any Federal or State Court of competent jurisdiction, Lessors may at their option declare this lease cancelled and take possession of said premises.

19. Lessors have agreed and do hereby agree that Lessee may terminate this lease at any time upon giving thirty (30) days written notice to Lessors, sent by registered mail to their last known mailing address, and in the event of the death of either or both of Lessors, Lessee may terminate this lease by sending such notice to the personal representative of Lessors, or the assignee of Lessors, or by an instrument surrendering its rights hereunder executed by it and recorded in the office of the Register of Deeds of Cherokee County, North Carolina, such termination to take effect thirty (30) days after the filing by Lessee of such instrument in said office for registration. In the event of termination, Lessee shall have a period of Sixty (60) days thereafter within which to remove any or all of its machinery, equipment, buildings and structures from said lands.

20. Lessee has agreed and does hereby agree that it takes the estate herein demised subject to all easements, roads and railroads that may be outstanding.

In Testimony Whereof, Lessors have set their hands and seals and Lessee has caused this contract to be signed by its president and its corporate seal to be hereto affixed, and attested by its Secretary, this the day and year first above written.



CARTOGRAPHY BY TVA MAPS AND SURVEYS DIVISION

PLATE 1

LOCATION No. 3

In a railroad cut, one mile northeast of Culberson and 500 feet southwest of an L&N railroad trestle over Rapier Mill Creek, talc lenses and stringers up to 18 inches across crop out in a clay bank. Occasional ledges of marble are exposed in the cut and there is a small abandoned marble quarry 1,000 feet to the southwest. It is reported that the marble quarry did not reveal talc signs of any kind and that the marble was dark gray, white, and multicolored. On the basis of talc exposures in the railroad cut, three core holes were drilled between the talc outcrops and the marble quarry but no success was achieved and core records were not preserved.

LOCATION No. 4

In the fall of 1945 and spring of 1946 the Mauney Mining Company did a little over 2,600 linear feet of core drilling for talc on the land of P. A. Mauney, about 1,500 feet southwest of Kinsey. The first 12 holes were located from the appearance of talc fragments in the overburden in a nearby railroad cut. A ledge of tremolitic marble in the railroad cut also showed small scales of talc. These first holes, accounting for 1,875 linear feet, intercepted nearly all of the upper stratigraphic half of the overturned marble formation without showing more than an inch of talc. These first holes, however, were of especial value when correlated with information from other sources, and they represented a key to the subdivision of the marble formation. As a result of the newly acquired data, four additional holes were drilled and the talc-bearing horizon was intercepted, although no talc was found. More than 1,000 feet of strike length remains to be explored on this property to the northeast toward the old Kinsey Mine, and there is no reason to assume that additional work would be illogical if close geologic control is maintained and if the data from previous drilling are utilized.

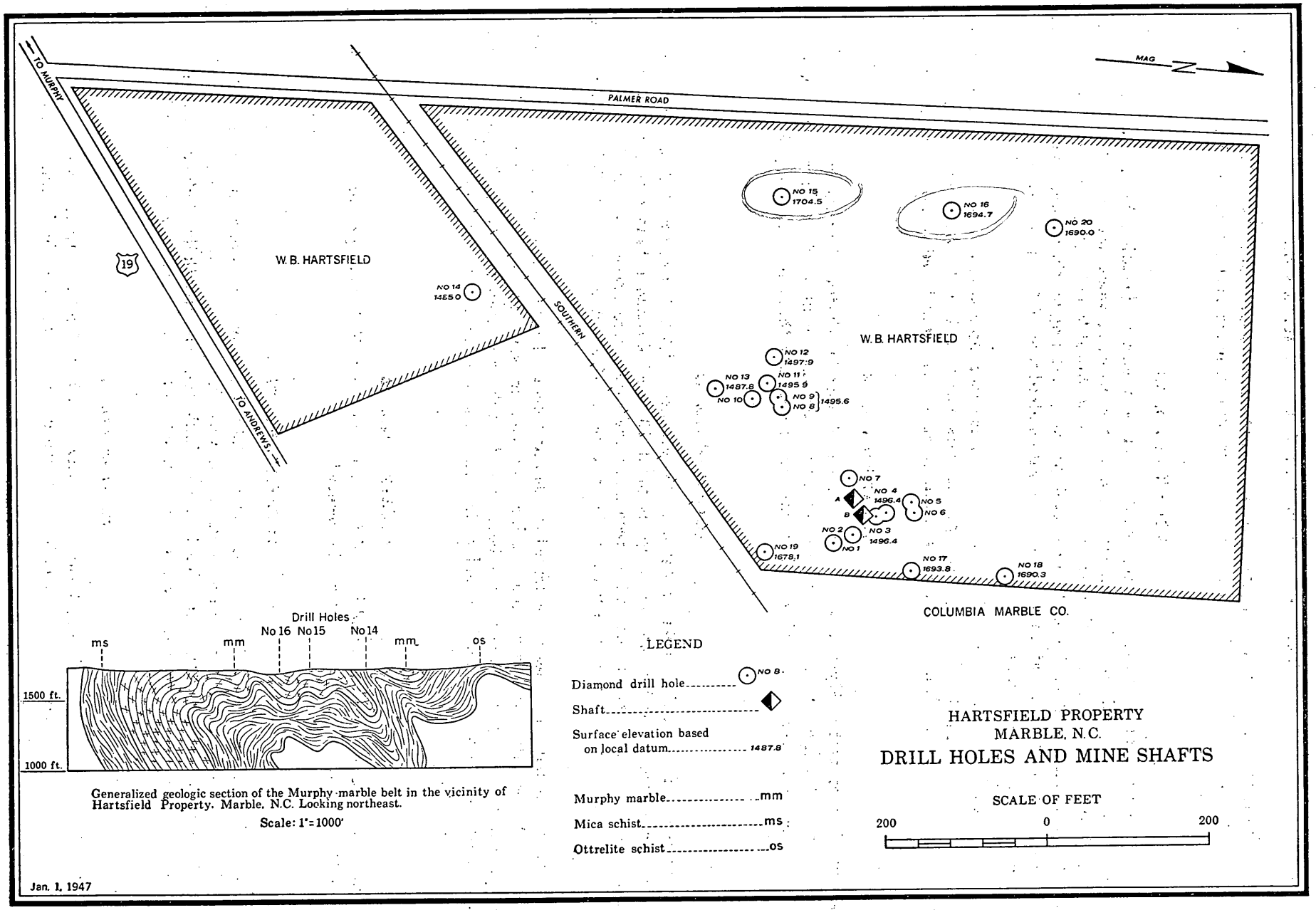
LOCATION No. 5

Near the southwest bank of the Nottely River, downstream from Hall's Ford and 300 feet northeast of Kinsey, an abandoned marble quarry now occupies the approximate site of the old Kinsey Talc Mine. A number of old caved shafts or pits can be seen for 100 feet southeast of the quarry. The quarry seems to include a small part of the white marble zone, full sections of the mixed zone and slaty zone, and a part of the actinolitic zone. One four-foot ledge of silicified marble can be seen on the caved southeast wall of the quarry and five lenses of talc, from three inches to twelve inches thick, crop out in the same place. Quantities of soft talc appear on the surface and in clay overburden, but these may come from the spoil of the older workings. Three core holes were drilled by the Cherokee Minerals Company in 1938 but core recovery was poor and no signs of talc were revealed. Two of the holes were located southeast of the L&N Railroad, and the third hole was on the northwest side nearer the quarry. It is believed that these core holes were not indicative and that additional prospecting would not be out of order.

When J. H. Pratt visited the Kinsey Mine around 1900, he reported that the talc lay in flat lenses wholly within the marble and associated with siliceous material. There were two tunnels, one 75 feet long, at levels 10 feet apart. Pratt reported that some of the talc blocks weighed a thousand pounds and that the mill produced six tons of "flower" talc per day. The workings probably extended under the L&N railroad.

LOCATION No. 6

The Carolina Talc Mine is also known locally as the Bailey Mine, Notla Mine, and Kinsey Mine (not to be confused with Location No. 5). It is situated on the right floodplain of the Nottely River 3,000 feet northeast of Kinsey and 1,900 feet west of Rogers Chapel. The first reported prospecting was done by H. S. Predmore and/or the Binney and Smith Company around 1907-08, and the first shaft was sunk in 1916. From 1926 until 1934 the property was operated through the Notla Talc Company by Binney and Smith. The Carolina Talc Company took over the property in 1934 and carried on successful operations until July 23, 1938, when high water from the Nottely River spread out over the flood plain, caving the mine from the surface and flooding it. Hiwassee Dam was nearing completion at the time and no attempt was made to resume operations since the surface level at the mine soon would be under six feet of water. It was estimated at the time that about 25,000 tons of talc remained underground, but more recent studies indicate that more complete core drill information probably would have resulted in higher estimates.



Generalized geologic section of the Murphy marble belt in the vicinity of Hartsfield Property. Marble, N.C. Looking northeast.

Scale: 1"=1000'

CARTOGRAPHY BY TVA MAPS AND SURVEYS DIVISION

PLATE 7

mately 200 linear feet of trenches and pits have been dug to an average depth of eight feet, disclosing heavily tremolitic talc similar to that at Maltby. Tremolite crystals as much as 20 inches long have been found here.

LOCATION NO. 23

Across the dirt road mentioned above, and 350 feet northeast of Location No. 22, three shafts of unknown depth have been sunk for talc. The first, and most successful, work was done by the Biltmore Talc Company, of Asheville, North Carolina, at about the time of World War I. It is reported that several drifts opened from the shaft at about the 60-80 foot level, probably trending northeast since the talc was supposed to have plunged northeastwardly at a low angle. Several hundred tons of "good grade cosmetic talc" is supposed to have been taken from the mine.

Around 1940, W. O. Hoffman sunk a shaft which was superimposed exactly upon the old Biltmore shaft, but operations were stopped before any development work was done. In 1946, W. A. Sherril, of Murphy, began a shaft to the north of the Biltmore location but this work too was abandoned without finding talc.

LOCATION NO. 24

About 600 feet west of Hyatt Creek, in the village of Marble, shafts of unknown dates were sunk on either side of U. S. Highway 19. It is not reported that talc was encountered although a mottled marble outcrop under the trestle across Hyatt Creek indicates the possibility that talc could be present in the general area.

LOCATION NO. 25

On property of W. B. Hartsfield, of Atlanta, Georgia, about 1,500 feet north of Moss Cemetery and 1,500 feet southwest of the Columbia Marble Company plant, 13 core holes and a shaft were put down around 1944. The drill holes did not intercept talc and no records of the cores were preserved, but the shaft encountered boulders of talc, tremolite, and siliceous marble at a depth of about 55 feet. Definite bed rock was not found in the shaft.

Several additional core holes were drilled in 1946 and detailed core logs were made. Core data showed that the marble formation was in normal position (not overturned) and subject to broad folding, and that any original talc at the specific location had been eroded. Talc encountered in the shaft apparently was transported material contained in alluvium and residuum. This does not mean that other talc deposits could not be in place in the general vicinity.

LOCATION NO. 26

It is reported that talc was found in a 66 foot shaft on the J. F. Palmer property, but reliable information about the general conditions could not be secured.

LOCATION NO. 27

J. W. Bailey put down a shaft on property of the Columbia Marble Company and some talc was found, but the shaft was located in swampy ground and work was abandoned because of excessive water. Later diamond drilling for marble by the Columbia Company indicated that Mr. Baileys' choice of a shaft site was logical so far as the marble's lithology was concerned, but no talc was encountered in the drill holes.

LOCATION NO. 28

On Junaluska Creek, at Andrews, 3,500 feet southwest of U. S. Highway 19, the Weber Company, of New York, put down several shafts near the southeast marble contact. Only a sericitic and possibly talcose, black and green slate was found.

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-2544

Date received 5-22-52

American Talc Company
77 River Street
Hoboken, N. J.

Name and address of applicant

Date May 5, 1952

INSTRUCTIONS

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

GENERAL TECHNICAL DATA

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

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products? Talc crayons, ground talc
   (*b*) What are the byproducts, if any? none
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following: see form MF-103
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following: see attachment #1
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated. see attachment #2
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production see attachment #3

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators: see attachment #4

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History: see form MF-103
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

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

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
M. Woodward Glenn	President						
Joseph Ferry	Vice Pres. Treasurer						
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues: none

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1950 ~~1948~~ Total (b)	1951 ~~1949~~ Total (c)	1952 ~~1950~~ Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	ground talc	400 T	600 T	350 T	
2. Quantity of product processed (specify unit of measure and type of process)	sawed crayons	--	$30.000.	---	
3. Quantity and grade of product sold or shipped (specify units of measure)	all	produced			

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

12. Ore or Mineral Reserves: see form MF-103 also bulletin #56

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

3. For each operation listed above supply the following:

BARTON MINE

(a) Distance and direction from nearest city.

4,600 feet southwest of Regal Station

(b) Mining district

Murphy Marble Belt

(c) Township, Section, Range

(d) County, State

Cherokee, North Carolina

MOORE MINE

See above - Barton Mine

CORNWALL MINE

See above - Barton Mine

4. State whether or not property is now in operation, by whom operated.

North Carolina Properties

BARTON MINE - is not in operation

(a) owned by H. A. and Ada Barton

(b) leased by American Talc Company

MOORE MINE - operating

(a) onwed in part by J. B. Moore and Southern Railway System

(b) leased by American Talc Company

CORNWALL MINE - not operating

(a) owned by American Talc Company

(b) mineral royalties paid to Cornwall family

5. Number of years in production.

Barton Mine, N. C. - never an active mine

Moore Mine, N. C. - operated since 1949

Cornwall Mine, N. C. - surface not known

6. State experience of operators.

The American Talc Company while a new organization (1950) has men highly experienced in talc as executives.

Mr. M. Woodward Glenn is President of the Georgia and the Southern Talc Companies in Chattsworth, Ga. He has been active in talc prospecting, milling and mining for 18 years. His father started the operations, so his contacts with talc producing ore are those of a lifetime. Mr. Glenn served on talc Industry Advisory Committees of both WPB and OPA during War II.

Complete descriptions of Mr. Glenn's talc operations in Georgia are given in "Talc Deposits of Murray County, Georgia" by A. S. Fircon and K. H. Teague, Bulletin #53 of the Geological Survey published 1947.

Special notice should be made that Mr. Glenn has long been a major producer of Talc (soapstone) crayons. The mining of ore for this type of product is the same as mining block, steatite talc for it requires recovery of large, blocks of massive type ore without shattering or fracturing.

Mr. Newman R. Davis the Supervisor in North Carolina, has been actively doing this type of work since 1932 in both North Carolina and Georgia. He is recognized as an outstanding, practical talc miner.

Mr. Joseph Ferry has been connected with talc over many years through the Imperial Talc Company and Charles Mathieu, Inc., the principal importer of Italian Talc in the United States. Mr. Ferry helped form the American Talc Company due to the dangers of the international situation and the possibilities that all qualities of Italian Talc, both block steatite and ground, might again be cut off in the event of hostilities.

Mr. W. Wallace Roff has been working with talc since 1923, as a Vice President of Whittaker, Clark & Daniels, Inc., large sales-distributors for both domestic and imported talcs. This company for many years were the largest importers of Indian Block Steatite Talc. Therefore, Mr. Roff is exceptionally experienced with the problems in connection with this material.

The American Talc Company is a non-operating company. The Southern Talc Company has been contracted to handle all operations including prospecting, mining and milling in North Carolina.

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

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

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

TOTAL ORE OR MINERAL RESERVES

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

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads. all mines are served by A-1 access roads

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year. Water supply available at all times of the year for core drilling

15. Power:

State amount of power used, rate per hour, and source thereof. serviced by T.V.A. area - ample

16. Labor: see form MF-103

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

17. Equipment and Facilities: see form MF-103

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

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain. see form MF-103

CERTIFICATION

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

American Talc Company
(Name of company)

By Joseph R Ferry
(Signature of authorized official)
Joseph Ferry

May 16 - 1952
(Date)

Vice President & Treasurer
(Title)

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

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

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

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

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

Not To Be Filled in by Applicant

Docket No. DMEA-2544
Metal or Mineral
Date Received 5-22-52
Amount $
Participation (Government %)

American Talc Company
77 River Street
Hoboken, New Jersey

Name and address of applicant

Date May 5, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 22 1952

If you have already filed MF-100, give date filed Attached, type of assistance requested exploration in North Carolina

DMA Docket Number (if available)

Moore, Barton, Cornwall

INSTRUCTIONS

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

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

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

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

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

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

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

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

Reference: Bulletin No. 56 "Talc Deposits of the Murphy Marble Belt" by E. C. Van Horn - abstracted comments.

16—64067-2

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

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

3. (*a*) Describe fully the proposed work and give the total cost of the project. $16,000. - see attachment #

   (*b*) State the time required to start the project and to complete it. start immediately - complete 1 year

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

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

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item. none

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

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

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

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

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

10. (*a*) How much are you prepared to invest in the proposed project? $1,600.

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

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

CERTIFICATION

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

American Talc Company
(Name of company)

By Joseph R Ferry
(Signature of authorized official)
Joseph Ferry

May 16 - 1952
(Date)

Vice President & Treasurer
(Title)

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

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

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

MOORE MINE

WOverlapping Location No. 15, a block of land has been leased by J. P. Jennings, Jr., Agent, of Asheville. On the basis of the data listed under Location No. 15 above and of a general knowledge of the position of the Murphy Marble Belt, the lessee conceived a plan to make a geophysical survey over a test area and check results by diamond drilling.

A total of 12 ranges on 100 foot centers was surveyed on nominal 25-foot centers, using a Hotchkiss Super Dip magnetometer. The geologist did not submit any detailed locations of the geology, except those which were needed to provide sufficient coverage, but a detailed geologic plan and section was prepared in advance and held for final correlation. Corrected profiles of the Hotchkiss readings showed distinct anomalies near the inferred marble-schist contacts at top of rock, as well as near the inferred position of the silicified white marble zone. Variations amount to from 80 to 270 Hotchkiss units at 2 degrees sensitivity, setting with a base norm of 125 Hotchkiss units. The diamond drill check holes have not been put down at this time. It should not be assumed, from this discussion, that the Hotchkiss survey is either affirmed or denied, nor is it inferred that talc is or is not present in the area described. However, the data presented under Location No. 15 are indicative of good possibilities for talc."

An 80 foot shaft shows 300-500 tons of talc still recoverable of quality at least good enough for grinding.

Has approximately 200 feet of drifts and cross-cuts.

There are no tunnels or other mine openings.

The shaft is not flooded.

BARTON MINE

Described in Bulletin #56 by E. C. Van Horn - page 44 - Location No. 15 as follows:

"Forty-six hundred feet southwest of Regal Station, on property now owned in part by J. B. Moore and in part by the Southern Railway System, a ledge of silicified marble outcrops in a railroad cut and is surrounded by a clay residuum which contains irregular patches of white and yellow talc. Just on the top edge of the cut, nearly opposite Mr. Moore's house, are the remains of an old shaft which was sunk sometime around 1900 by a Mr. Heighway. It is reported that a good grade of block talc was removed and sold, and that the operations were stopped because of interference with railroad operations, but no other information is known."

1. (a) Con't.

BARTON MINE

At present no shaft or underground work - recently core-drilled but to date no talc located.

CORNWALL MINE

Connects Moore and Barton properties - not described by Van Horn. No workings to date.

American Talc Company
77 River Street
Hoboken, N. J.

MF-103
Attachment #2

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

MOORE MINE - leased by American Talc Company - see attachment #3

BARTON MINE - leased by American Talc Company - see attachment #4

CORNWALL MINE - land and building owned by American Talc Company
mineral rights -- see attachment #

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

MOORE MINE

FIRST PARCEL: Beginning on a stake on the bank of a public road and in the margin of the Southern Railway Right of Way, and runs with the margin of said railroad right of way North 45 East 232 feet to a stake on a thirty foot street; then with the margin of street South 53-30 East 170 feet to a stake on said street; then South 54 West 330 feet to a stake on the bank of the road; then with the margin of the road North 7 West 60 feet to a stake; then continuing with the margin of said road North 21 West 80 feet to the beginning, containing one acre, more or less.

Together with such title and interest as the receivers of Cherokee Iron and Marble Company have in and to the lands lying between the lands described and the center line of the Southern Railway Company tracks, subject to the right of way of said railroad, and excepting and reserving, however, the right of way of the old county road running across said lands in the direction of Regal, for the public use, and as a means of access to the other lands of the Cherokee Iron and Marble Company, for the benefit of the Receivers of the Cherokee Iron and Marble Company, and their successors and assigns.

Being the same lands described in a deed dated October 21, 1938 from J. H. McGee and D. Witherspoon, Receivers of Cherokee Iron and Marble Company, to J. B. Moore and wife, Bessie Moore, and recorded in the office of the Register of Deeds for Cherokee County, North Carolina, on November 3,1938 in deed book No. 125 page 460.

SECOND PARCEL: Part of Cherokee Iron and Marble Company lands, in Murphy Township, Cherokee County, North Carolina, particularly described asfollows:

Beginning on a stake in the East margin of road and runs North 80 East 242 feet to a stake on a thirty foot street; then with the west margin of said street, North 8 East 232 feet to a corner of said street; then continuing with a thirty foot street, North 54 West 12 feet to a stake in the margin of said street, and corner of lot formerly sold to J. B. Moore; then with the line of said lot South 53 West 336 feet to stake in margin of said road and corner of J. B. Moore lot; then with the East margin of said road South 4-30 East 80 feet to the beginning, containing 1.01 acres, more or less.

Being the same tract of land described in a deed dated October 3, 1941, from J. H. McGee and D. Witherspoon, Receivers of the Cherokee Iron and Marble Company, to J. B. Moore and wife, Bessie Moore, and recorded in the office of Register of Deeds for Cherokee County, North Carolina, on October 29, in book No. 139, page 10.

BARTON MINE

Lying in Murphy Township, Cherokee County, 2.2 miles from Murphy, North Carolina, on State Highway No. 10, U. S. 19, BEGINNING on N.E. corner on Iron pin set in concrete 30 feet from center line of said

1. (c) BARTON MINE - legal description (con't)

Highway No. 10, U. S. No. 19, and runs N. 60 degrees and 30" West 399.3 feet to another iron pin set in concrete; thence N. 24 degrees and 52' W. 399.0 feet to another iron pin set in concrete; thence N. 17 degrees and 51' E 289.2 feet to another iron pin set in concrete; thence N. 32 degrees and 59 W 306.1 feet to another iron pin set in concrete being 100 feet from center line of Southern Railroad, this being right of way of Southern Railroad; thence S. W. with this right of way of said railroad 771.0 feet to another iron pin set in concrete; thence S. 45 degrees and 02' 00" East 1172.9 feet to another iron pin set in concrete on the right of way of N. C. Highway No. 10, U. S. 19; thence with this right of way 337.0 feet, more or less to the beginning, containing 11.4 acres, more or less.

CORNWALL MINE

2. (b) Furnish statement of the geologic features of your property.

See Bulletin #56 by E. C. Van Horn "Talc Deposits of the Murphy Marble Belt"

Abstracted comments

The Murphy marble belt extends some 35 miles in North Carolina from Wesser to the Georgia State line, including parts of Swain, Macon and Cherokee Counties.

The Murphy marble formation, which is the only host formation to commercial talc in the area, is a true marble of nonuniform mineralogy, exposed as a part of the northwest limb of an overturned anticline. It is believed that the Murphy marble is conformable with adjacent rocks which comprise a series of schists, gneisses, and quartzites having distinct variations both along and across the strike and which are probably of pre-Cambrian (?) Ocoee age.

Relationships between the marble and its contained talc deposits have been clarified to the extent of delimiting occurrences of commercial talc to a specific zone of the marble formation. It has been established that the attitudes of talc bodies are controlled by the attitudes of intraformational folds and are reflected in lineation phenomena. Theories are advanced to account for elliptical shapes of talc bodies.

Talc deposits in western North Carolina occur in two settings. Deposits having the widest distribution are associated with basic igneous rocks, particularly the olivine-bearing varieties in Macon and Jackson Counties and pyroxene-bearing varieties in Madison County, but talc of this type has received little serious attention in the past. Of much greater importance are the deposits that occur as lenses and beds in very old dolomitic marbles in the counties of Swain, Macon and Cherokee. This report is concerned only with the last named three counties.

From Topton southwestward to Murphy, the marble usually underlies the lowlands formed by the Valley River. From Murphy, the marble crosses a small divide between the Nottely and Hiwassee Rivers, underlies the Nottely River to near Ranger, and then is traced by small creeks throughout the remainder of its extent. Thus, general drainage patterns are controlled by the marble formation, but in detail the marble often is outside stream valleys, trending along adjacent slopes and across low divides.

Nearly all of the marble belt is situated satisfactorily with respect to transportation facilities. The Murphy branch of the Southern Railroad follows the belt from Wesser to Murphy and U. S. Highway 19 is seldom more than a few hundred yards from the marble over the same distance. Between Culberson and Marble, TVA power is supplied by the cooperatives at Murphy and at Blue Ridge, Georgia.

The search for talc deposits heretofore has been fortuitous and unsystematic. Only since 1942 has there been a change in the general philosophy for exploring for concealed talc deposits. A real geologic mapping was carried out accordingly, with detailed work in the central portion of the belt, and more general studies in the outer areas. In the more rugged country, the scope of this program did not permit thorough survey. The Murphy marble is the only formation that contains talc deposits in the area.

In North Carolina the Murphy marble occurs in two geographically separated areas. The first and main belt extends from near Wesser to Culberson and on into Georgia, following along the Nantahala, Valley and Nottely Rivers. The outcrop pattern is locally irregular as the result of domed and plunging folds and varying degrees of topographic re-entrant, and the marble is found both in stream bottoms andon the slopes.

It has now been found that the Murphy marble is neither homogeneous nor unsymtematically heterogeneous, but that it is probably zoned in accord with accepted principles of sedimentation and petrology. It has been found also that facies which were originally sandy and shaly are important features of the formation and sometimes nearly displace the calcareous facies. A formation may be absent from its normal position in a sequence for one of three, reasons: (a) the material was never deposited, (b) the material was deposited and later eroded, or (c) the material was deposited and later faulted out of position. Of course, the formation could be present and merely concealed, from view. Faulting has been used in the past, with supporting evidence, to explain the apparent absence of the Murphy marble in certain localities but equally good evidence now supports reason (a) in some places, and the problem of concealment cannot be ignored in others.

At prospect No. 15, a ledge of silicified marble crops out in the railroad cut beside J. B. Moore's, and it is reported that white marble was intercepted by a diamond drill about 1,000 feet further northeast.

Gray, banded marble is exposed along a small stream, immediately west of Regal Station, by pits which were made in search of dimension marble. The famous Regal marble quarry, 400 feet southeast of Regal Station, is now filled with water, but it has been described in bulletins of the North Carolina Geological Survey. Waste blocks piled around the quarry, show many of these accessory minerals. The Regal quarry is situated near the stratigraphic base of the overturned formation and southeast of where the talc-bearing zone normally would be exposed. Between Regal and Marble the formation can be traced by means of talc prospects and the positions of adjacent formations.

Natural outcrops of the Murphy marble are so widely separated that the preparation of detailed geologic sections across the entire formation has been comparatively futile in the past. However, a careful study of the results of recent core drilling programs, coupled with the combined results of old and new geologic field work, has shed new light on the stratigraphy of the marble. Detailed core logs are now available. The average depths of holes range from 75 feet at the Minerals and Metals mine to well over 200 feet at Hitchcock Corporation's property.

Experience has shown that in localities where talc exploration and mining are carried on along the Murphy marble, the thickness and type of overburden varies more or less with elevation. A study of cleavages northwest of the Murphy marble shows with little doubt that southeast-dipping beds are overturned, except in the minor folds, in all rocks from the phyllite and mica schist (pms) to the mica schist (ms). Similar studies at Murphy indicate overturning in the ottrelite schist (os) and ottrelite gneiss (og). Although few internal structures of the Murphy marble point conslusively to overturning, features that might characterize overturned beds have been recorded inadvertently as far back as the work of Loughlin, Berry and Cushman.

p and strike vary from place to place along the Murphy marble belt, but for estimating and projecting purposes it is convenient to use N45°E for the strike and 50°SE for the dip. Bedding is often parallel to schistosity but deviation may occur in a critical locality. The most accurate criteria for bedding determinations are banding and facies changes, and all other criteria should be regarded with suspicion, but even banding might be caused by non-conforming structures. The most satisfactory method is to compare several criteria and check one against another.

Fault planes that show considerable movement have not been observed directly, but drag structures indicate that such faults do exist near some of the minor folds in schistose and gneissic rocks. All rocks in the area of the Murphy marble belt exhibit a more or less common regional foliation termed schistosity. Secondary fractures were formed during the later stages of metamorphis, and these new fractures attempted to follow the cleavages which had been formed previously. Thus the schistosity is a special combination of flow cleavage and fracture cleavage. The direction of plunge of cleavage intersections on schistosity planes have been demonstrated to correspond to the plunge of minor folds along the Murphy marble belt, allowing structural interpretations which have been obscured heretofore. It has been found that talc bodies of the area also plunge in accord with cleavage intersections.

The approximate stratigraphic center of the formation is occupied by a fine-grained, white, dolomitic marble which sometimes contains talc deposits. The lenticular tendency of talc bodies in the Murphy marble has been recognized. Indications are that these lenticular bodies have echelon arrangement with a "line of bearing" parallel to the strike of the marble in which individual lenses vary from the local strike in amounts depending upon the degree of plunge. Lenses that have been discovered thus far plunge either northeast or southwest at an average angle of about 18° from horizontal, varying from zero to as much as 35°. In order to explain the lenticular nature of the talc bodies, it must be realized that rock deformation seldom results from uni-directional forces, but rather from multi-directional forces which twist and either compress or pull apart.

The various talc deposits have internal structures which differ from place to place only in degree and direction. Van Horn assumes that talc formation took place during a lull in rock deformation near the end of the last great period of metamorphism (Carboniferous age) and that only slight movement occurred after the talc was in place. The theory allows for those few examples of massive talc which are known to exist.

The average grade of commercial talc in the Murphy marble is of high quality as compared to talc from other parts of the country. The color of the fresh talc varies from pure white (equal to standard magnesium carbonate) through greenish-white, green, blue and gray. Variation in color may be due in part to the refraction of light through minute fracture systems. In the large talc bodies the transition from talc to marble and/or quartz is gradational. Smaller isolated talc pockets and fingers have rims of mixed talc and wall rock, and "footwalls" and "hangingwalls" do not cause sharp contacts. On the other hand, changes in the quality of talc within a single body tend to be abrupt, and contacts between grades have plunges comparable to those of the parent masses of talc.

more or less definite zoning within the Murphy marble has been revealed listed in descending stratigraphic order from top to base, a typical section of the marble, with accumulative depths is as follows:

		Mica schist (ms)
0	feet	Transition zone
20	"	Actinolitic zone
105	"	Slaty zone
130	"	Mixed zone
155	"	White (talc-bearing) zone
200	"	Mottled zone
215	"	Gray zone
235	"	Blue zone
275	"	Coarse gray zone
305	"	Coarse white zone
330	"	Transition zone

Little crude talc is shipped from the Murphy area. Much of the talc is sawed into crayons, packed one gross to a carton, and shipped in crates of 24 cartons. All other talc is pulverized at from 90 per cent minus 100 mesh to 98 per cent minus 200 mesh and shipped in 50 pound paper bags. The pulverized talc is used principally in cosmetic, textile and food polishing industries. Small shipments sometimes are made to supply high grade talc in blocks for art work.

Mining and milling costs in recent operations are not available, but it is believed that normal estimating methods can be applied with a fair degree of accuracy. Accurate prices of processed talc can be obtained only through reputable buyers, but it is probable that the average price of talc products from the Murphy area exceeds $50. per ton, f.o.b. Murphy area, including both crayons and pulverized talc. Prices of pulverized talc are quite variable but talc crayons are fairly well stabilized at the quivalent of from $350 to $400 per ton in individual cartons. Talc reserves in the Murphy marble belt are more than adequate for long term operations. There is still plenty of room for additional exploration work with good chance of success as compared with other types of mineral exploration and much of the "guess work" has now been removed.

The prospector must realize that only in comparatively flat topography does the marble lie along a straight outcrop or "strike line". Such irregularities are caused more by differences in the altitude of the ground surface than by differences in strike and dip. Topographic effects cannot be overemphasized as one of the largest known talc bodies of the area was missed by two separate drilling programs because a "strike line" was followed without considering variations of surface elevation. The most reliable and economical way to prospect for primary talc, as for similar types of concealed mineral deposits, is by diamond core drilling. The preliminary target is a zone of white, possibly talc-bearing marble which may be as much as 40 feet thick. This white zone is identified by the sequence of blue, gray and mottled marble which is associated with it. Once the position of the central white marble zone has been established, additional hole locations will depend upon previous results, and some drilling footage may be conserved by including less of the barren section in subsequent holes. It is essential, however, that the white marble zone be encountered below top of bed rock in order that complete core recovery may be obtained in the critical horizon.

American Talc Company
77 River Street
Hoboken, N. J.

MF-103
Attachment #

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

Core drilling Moore, Barton and Cornwall Property for block steatite talc.

20 holes to be put down at a depth of 250 to 300 feet (Note: largest talc deposit located to date in Murphy Marble belt was below 250 feet)

20 holes x 300 feet = 6,000 total feet to be core drilled.

Estimate 2.5 feet per working hour of 3 man crew based on past experiences in core drilling at Barton-Moore Mine.

6,000 feet ÷ 2 1/2 feet = 2,400 hours of drilling for 3 man crew

2,400 hours ÷ 50 hour work week = 48 weeks work

48 work weeks - approximately 1 year

This allows 20 holes to be placed per year or 1 2/3 holes per month at a depth of 300 feet.

Total Costs -

Equipment to be purchased	$2,000.00	
Labor and Supervision	11,340.00	
Power, rentals, water, misc.	2,660.00	($222. per month)
	$16,000.00	

Estimated average cost per foot - $2.66

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

MACHINERY

Sullivan Air Compressor 10 x 12
60 H. P. Motor and Switches & Base
1 Eberhardt-Denver Speed Reducer with 5 HP Motor & Switch
Old Outside Core Drill (Sullivan)
New Outside Core Drill (Joy Mfg.)
Inside Core Drill (Sullivan)
Ford 1½ Ton Dump Truck
Drifter Drill & Post
Portable Compressor Unit
Ventilating Fan & 5 HP Motor
Gasoline Engine-Hoist
Sullivan 4-Cylinder Air Hoist 7½ HP
Ingersoll-Rand Double Drum Scraper Hoist (electric)
One Steel Turntable for 24" Gauge track
Galvanized Tin Roofing - covering buildings
Mine Blower Fan
Gardner-Denver Air Hoist
1951 Dodge Pick-up
Double Drum Scraper-Hoist, Air
Electric Hoist for main shaft, Moore Mine
Pumps
3 tons steel rail
Miscellaneous drill steel, bits, etc.

BUILDINGS

(Moore Mine) Tipple House & Bins

(Cornwall Property) One dwelling house and surface rights

American Talc Company
1 River Road
Hoboken, N. J.

MF-103
Attachment #

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

(a) Rented

Portable Compressor Unit (9)	$1700.00
Drill - new outside (Joy Mfg.) (5)	4500.00
Drill - Inside - Sullivan (6)	1500.00
Dodge Pick-up - (18)	1580.00

(b) Purchased

added piping and convert to BX Drill present drive 1 1/8" out 3/4" in.	2000.00

(c) Furnished by you

Air Compressor - Sullivan (1)	2000.00
Motor & Switches, etc. (2)	1700.00
Drifter Drill & Post (8)	500.00
Truck - Ford (7)	750.00
Fan - Ventilating (10)	450.00
Fan - Mine Blower (16)	700.00
Hoist - Gasoline (Regal) (11)	750.00
Hoist - Sullivan 4-cylinder (12)	500.00
Hoist Ingersoll-Rand (13)	750.00
Hoist - Gardner-Denver (17)	900.00
Hoist - Double Drum Spacer (19)	12 00.00
Hoist - Electric for main shaft	1500.00
Turntable - (14)	125.00
Pumps (21)	500.00
Rail (22)	540.00
Misscellaneous	200.00

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

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

LABOR

	Monthly	Yearly
Analytical & Testing	50.00	600.00
*Accounting & Records	20.00	240.00
*Supervisor	75.00	900.00
*Consultant	50.00	600.00
*Foreman	50.00	600.00
3 man crew	600.00	7,200.00
miscellaneous labor	100.00	1,200.00
TOTAL	945.00	11,340.00

*Estimated on basis of shared cost with Regal Mine application.

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

There is reason to believe that high quality block steatite talc would be available in the Murphy Marble Belt area. The published geological surveys show the presence of talc in this section.

An exploration loan has been granted for another project located within this same area as it was established that there is the possibility of securing the strategic type of block steatite. Evidence also exists to confirm this in that the American Lava Company of Chattanooga, Tenn., formerly obtained steatite quality talc. Further indication of the presence of a massive type of material is shown by the availability of ore of a quality suitable for cutting crayons. Even though the ore for cutting crayons is not satisfactory for firing, its presence indicates a massive type of formation in the Murphy Marble Belt which, in spots, very likely could be dense enough for satisfactory firing.

Reference should also be made to the fact that the printed geological surveys only go to depths of approximately 75-100 feet. However, core drilling since the days of the most recent publication have disclosed the largest deposits of talc yet located in North Carolina to be at depths of 250-300 feet. Hence it is deemed desirable to core drill to this depth.

EXPLORATION

Subject: DMEA-2544
Re: Exploration Loan
Moore, Barton and Cornwall Property
May 22, 1952

Mr. Joseph R. Ferry
American Talc Company
77 River Street
Hoboken, New Jersey

My dear Mr. Ferry:

This will acknowledge receipt of your application dated May 5, 1952 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2544 and referred to the Non-Metallics Division.

Kindly refer to DMEA-2544 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Administrative Officer

7862

DMEA-2544

AMERICAN TALC COMPANY

MINERS AND MANUFACTURERS

CHATSWORTH, GEORGIA

QUALITY TALC FOR ALL PURPOSES

May 2, 1952

Defense Minerals Production Authority
Washington 25, D. C.

Gentlemen:

Attached is a request for a government exploration loan to core drill in North Carolina for block steatite talc of strategic quality.

Data requested on government forms MF-100 and MF-103 is attached.

Briefly request is made for $16,000. to be used in sinking 20 core drills on the Moore, Barton & Cornwall Property located in the Murphy Marble Belt in North Carolina.

It is requested that favorable consideration be given to this application and although year round operations are possible in the area, as much advantage as possible would like to be taken of the good summer months on this work.

This letter also authorizes Miss A. J. Gitter to discuss this application with any federal agency concerned.

Thank you for your cooperation.

Very truly yours,

AMERICAN TALC COMPANY

Joseph R Ferry

Joseph Ferry, Vice Pres.

JF/ea

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 22 1952

ALSIMAG

AMERICAN LAVA CORPORATION

CERAMICS FOR ELECTRICAL AND OTHER TECHNICAL USES - STEATITE TITANIA ALUMINA

CHATTANOOGA 5, TENNESSEE

March 20, 1952

Mr. M. Virginia Glenn,
[illegible],
[illegible],
Waterworth, Georgia.

Dear Mr. Glenn:

Thanks for the sample of talc crayon from the old [illegible] Mine, Nantahala, N. C. I showed the sample to one of our old timers in the ceramics group, and he immediately replied ... "This is not the quality which we used to get. The color is O.K. but we used to get a more granular material which did not crack in firing. This sample will split."

I fired the sample through our kiln, and I am returning you the fired piece just to show you that he was right. But don't not give up.

Best regards,

Sincerely yours,

AMERICAN LAVA CORPORATION

Hans Thurnauer
Vice Pres. - ~~Dir. of~~ Research

HT/gm
enc.

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

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

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

Not To Be Filled in by Applicant

Docket No. DMEA-2544
Metal or Mineral
Date Received 5-22-52
Amount $
Participation (Government %)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAY 22 1952

American Talc Company
77 River Street
Hoboken, New Jersey

Name and address of applicant

Date May 5, 1952

If you have already filed MF-100, give date filed attached, type of assistance requested exploration in North Carolina,

DMA Docket Number (if available)

Moore, Barton, Cornwall

INSTRUCTIONS

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

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

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

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

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

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

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

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

Reference: Bulletin No. 56 "Talc Deposits of the Murphy Marble Belt" by E. C. Van Horn. - abstracted comments

16—64067-2

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

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

3. (*a*) Describe fully the proposed work and give the total cost of the project. $16,000. - see attachment #

   (*b*) State the time required to start the project and to complete it. start immediately - complete 1 year

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

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

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item. none - see attachment #

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

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

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

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

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

10. (*a*) How much are you prepared to invest in the proposed project? $1,600.

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

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

CERTIFICATION

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

American Talc Company
(Name of company)

By Joseph R Ferry
(Signature of authorized official)
Joseph Ferry

May 16 - 1952
(Date)

Vice President & Treasurer
(Title)

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

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

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

MOORE MINE

Described in Bulletin #56 by E. C. Van Horn - page 44 - Location #16 as follows:

"Overlapping Location No. 15, a block of land has been leased by J. P. Jennings, Jr., Agent, of Asheville. On the basis of the data listed under Location No. 15 above and of a general knowledge of the position of the Murphy Marble Belt, the lessee conceived a plan to make a geophysical survey over a test area and check results by diamond drilling. A total of 12 ranges on 100 foot centers was surveyed on nominal 25-foot centers, using a Hotchkiss Super Dip magnetometer. The geologist did not submit any detailed locations of the geology, except those which were needed to provide sufficient coverage, but a detailed geologic plan and section was prepared in advance and held for final correlation. Corrected profiles of the Hotchkiss readings showed distinct anomalies near the inferred marble-schist contacts at top of rock, as well as near the inferred position of the silicified white marble zone. Variations amount to from 80 to 270 Hotchkiss units at 2 degrees sensitivity, setting with a base norm of 125 Hotchkiss units. The diamond drill check holes have not been put down at this time. It should not be assumed, from this discussion, that the Hotchkiss survey is either affirmed or denied, nor is it inferred that talc is or is not present in the area described. However, the data presented under Location No. 15 are indicative of good possibilities for talc."

An 80 foot shaft shows 300-500 tons of talc still recoverable of quality at least good enough for grinding.

Has approximately 200 feet of drifts and cross-cuts.

There are no tunnels or other mine openings.

The shaft is not flooded.

BARTON MINE

Described in Bulletin #56 by E. C. Van Horn - page 44 - Location No. 15 as follows:

"Forty-six hundred feet southwest of Regal Station, on property now owned in part by J. B. Moore and in part by the Southern Railway System, a ledge of silicified marble outcrops in a railroad cut and is surrounded by a clay residuum which contains irregular patches of white and yellow talc. Just on the top edge of the cut, nearly opposite Mr. Moore's house, are the remains of an old shaft which was sunk sometime around 1900 by a Mr. Heighway. It is reported that a good grade of block talc was removed and sold, and that the operations were stopped because of interference with railroad operations, but no other information is known."

1. (a) Con't.

BARTON MINE

At present no shaft or underground work - recently core-drilled but to date no talc located.

CORNWALL MINE

Connects Moore and Barton properties - not described by Van Horn. No workings to date.

American Talc Compan
77 River Street
Hoboken, N. J.

MF-103
Attachment #2

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

MOORE MINE - leased by American Talc Company - see attachment #3

BARTON MINE - leased by American Talc Company - see attachment #4

CORNWALL MINE - land and building owned by American Talc Company
mineral rights -- see attachment #

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

MOORE MINE

FIRST PARCEL: Beginning on a stake on the bank of a public road and in the margin of the Southern Railway Right of Way, and runs with the margin of said railroad right of way North 45 East 232 feet to a stake on a thirty foot street; then with the margin of street South 53-30 East 170 feet to a stake on said street; then South 54 West 330 feet to a stake on the bank of the road; then with the margin of the road North 7 West 60 feet to a stake; then continuing with the margin of said road North 21 West 80 feet to the beginning, containing once acre, more or less.

Together with such title and interest as the receivers of Cherokee Iron and Marble Company have in and to the lands lying between the lands described and the center line of the Southern Railway Company tracks, subject to the right of way of said railroad, and excepting and reserving, however, the right of way of the old County road running across said lands in the direction of Regal, for the public use and as a means of access to the other lands of the Cherokee Iron and Marble Company, for the benefit of the Receivers of the Cherokee Iron and Marble Company and their successors and assigns.

Being the same lands described in a deed dated October 21, 1938 from J. H. McGee and D. Witherspoon, Receivers of Cherokee Iron and Marble Company, to J. B. Moore and wife, Bessie Moore, and recorded in the office of the Register of Deeds for Cherokee County, North Carolina, on November 3, 1938 in deed book No. 125, page 460.

SECOND PARCEL: Part of Cherokee Iron and Marble Company lands, in Murphy Township, Cherokee County, North Carolina, particularly described as follows:

Beginning on a stake in the East margin of road and runs North 80 East 242 feet to a stake on a thirty foot street; then with the west margin of said street, North 8 East 232 feet to a corner of said street; then continuing with a thirty foot street, North 54 West 12 feet to a stake in the margin of said street, and corner of lot formerly sold to J. B. Moore; then with the line of said lot South 53 West 336 feet to stake in margin of said road and corner of J. B. Moore lot; then with the East margin of said road South 4-30 East 80 feet to the beginning, containing 1.01 acres, more or less.

Being the same tract of land described in a deed dated October 3, 1941, from J. H. McGee and D. Witherspoon, Receivers of the Cherokee Iron and Marble Company, to J. B. Moore and wife, Bessie Moore, and recorded in the office of Register of Deeds for Cherokee County, North Carolina, on October 29, in book No. 139, page 10.

BARTON MINE

Lying in Murphy Township, Cherokee County, 2.2 miles from Murphy, North Carolina, on State Highway No. 10, U. S. 19, BEGINNING on N.E. corner on iron pin set in concrete 30 feet from center line of said

1. (c) BARTON MINE - legal description (con't)

Highway No. 10, U. S. No. 19, and runs N. 60 degrees and 30" West 399.3 feet to another iron pin set in concrete; thence N. 24 degrees and 52' W. 399.0 feet to another iron pin set in concrete; thence N. 17 degrees and 51' E. 289.2 feet to another iron pin set in concrete; thence N. 32 degrees and 59 W 306.1 feet to another iron pin set in concrete being 100 feet from center line of Southern Railroad, this being right of way of Southern Railroad; thence S. W. with this right of way of said railroad 771.0 feet to another iron pin set in concrete; thence S. 45 degrees and 02' 00" East 1172.9 feet to another iron pin set in concrete on the right of way of N. C. Highway No. 10, U. S. 19; thence with this right of way 337.0 feet, more or less to the beginning, containing 11.4 acres, more or less.

CORNWALL MINE

(b) Furnish statement of the geologic features of your property.

See Bulletin #56 by E. C. Van Horn "Talc Deposits of the Murphy Marble Belt"

Abstracted comments

The Murphy marble belt extends some 35 miles in North Carolina from Wesser to the Georgia State line, including parts of Swain, Macon and Cherokee Counties.

The Murphy marble formation, which is the only host formation to commercial talc in the area, is a true marble of nonuniform mineralogy, exposed as a part of the northwest limb of an overturned anticline. It is believed that the Murphy marble is conformable with adjacent rocks which comprise a series of schists, gneisses, and quartzites having distinct variations both along and across the strike and which are probably of pre-Cambrian (?) Ocoee age.

Relationships between the marble and its contained talc deposits have been clarified to the extent of delimiting oocurrences of commercial talc to a specific zone of the marble formation. It has been established that the attitudes of talc bodies are controlled by the attitudes of intraformational folds and are reflected in lineation phenomena. Theories are advanced to account for elliptical shapes of talc bodies.

Talc deposits in western North Carolina occur in two settings. Deposits having the widest distribution are associated with basic igneous rocks, particularly the olivine-bearing varieties in Macon and Jackson Counties and pyroxene-bearing varieties in Madison County, but talc of this type has received little serious attention in the past. Of much greater importance are the deposits that occur as lenses and beds in very old dolomitic marbles in the counties of Swain, Macon and Cherokee. This report is concerned only with the last named three counties.

From Topton southwestward to Murphy, the marble usually underlies the lowlands formed by the Valley River. From Murphy, the marble crosses a small divide between the Nottely and Hiwassee Rivers, underlies the Nottely River to near Ranger, and then is traced by small creeks throughout the remainder of its extent. Thus, general drainage patterns are controlled by the marble formation, but in detail the marble often is outside stream valleys, trending along adjacent slopes and across low divides.

Nearly all of the marble belt is situated satisfactorily with respect to transportation facilities. The Murphy branch of the Southern Railroad follows the belt from Wesser to Murphy and U. S. Highway 19 is seldom more than a few hundred yards from the marble over the same distance. Between Culberson and Marble, TVA power is supplied by the cooperatives at Murphy and at Blue Ridge, Georgia.

The search for talc deposits heretofore has been fortuitous and unsystematic. Only since 1942 has there been a change in the general philosophy for exploring for concealed talc deposits. A real geologic mapping was carried out accordingly, with detailed work in the central portion of the belt, and more general studies in the outer areas. In the more rugged country, the scope of this program did not permit thorough survey. The Murphy marble is the only formation that contains talc deposits in the area.

North Carolina the Murphy marble occurs in two geographically separated areas. The first and main belt extends from near Wesser to Culberson and on into Georgia, following along the Nantahala, Valley and Nottely Rivers. The outcrop pattern is locally irregular as the result of domed and plunging folds and varying degrees of topographic re-entrant, and the marble is found both in stream bottoms andon the slopes.

It has now been found that the Murphy marble is neither homogeneous nor unsymtematically heterogeneous, but that it is probably zoned in accord with accepted principles of sedimentation and petrology. It has been found also that facies which were originally sandy and shaly are important features of the formation and sometimes nearly displace the calcareous facies. A formation may be absent from its normal position in a sequence for one of three, reasons: (a) the material was never deposited, (b) the material was deposited and later eroded, or (c) the material was deposited and later faulted out of position. Of course, the formation could be present and merely concealed, from view. Faulting has been used in the past, with supporting evidence, to explain the apparent absence of the Murphy marble in certain localities but equally good evidence now supports reason (a) in some places, and the problem of concealment cannot be ignored in others.

At prospect No. 15, a ledge of silicified marble crops out in the railroad cut beside J. B. Moore's, and it is reported that white marble was intercepted by a diamond drill about 1,000 feet further northeast.

Gray, banded marble is exposed along a small stream, immediately west of Regal Station, by pits which were made in search of dimension marble. The famous Regal marble quarry, 400 feet southeast of Regal Station, is now filled with water, but it has been described in bulletins of the North Carolina Geological Survey. Waste blocks piled around the quarry, show many of these accessory minerals. The Regal quarry is situated near the stratigraphic base of the overturned formation and southeast of where the talc-bearing zone normally would be exposed. Between Regal and Marble the formation can be traced by means of talc prospects and the positions of adjacent formations.

Natural outcrops of the Murphy marble are so widely separated that the preparation of detailed geologic sections across the entire formation has been comparatively futile in the past. However, a careful study of the results of recent core drilling programs, coupled with the combined results of old and new geologic field work, has shed new light on the stratigraphy of the marble. Detailed core logs are now available. The average depths of holes range from 75 feet at the Minerals and Metals mine to well over 200 feet at Hitchcock Corporation's property.

Experience has shown that in localities where talc exploration and mining are carried on along the Murphy marble, the thickness and type of overburden varies more or less with elevation. A study of cleavages northwest of the Murphy marble shows with little doubt that southeast-dipping beds are overturned, except in the minor folds, in all rocks from the phyllite and mica schist (pms) to the mica schist (ms). Similar studies at Murphy indicate overturning in the ottrelite schist (os) and ottrelite gneiss (og). Although few internal structures of the Murphy marble point conclusively to overturning, features that might characterize overturned beds have been recorded inadvertently as far back as the work of Loughlin, Berry and Cushman.

Dip and strike vary from place to place along the Murphy marble belt, but for estimating and projecting purposes it is convenient to use N45°E for the strike and 50°SE for the dip. Bedding is often parallel to schistosity but deviation may occur in a critical locality. The most accurate criteria for bedding determinations are banding and facies changes, and all other criteria should be regarded with suspicion, but even banding might be caused by non-conforming structures. The most satisfactory method is to compare several criteria and check one against another.

Fault planes that show considerable movement have not been observed directly, but drag structures indicate that such faults do exist near some of the minor folds in schistose and gneissic rocks. All rocks in the area of the Murphy marble belt exhibit a more or less common regional foliation termed schistosity. Secondary fractures were formed during the later stages of metamorphis, and these new fractures attempted to follow the cleavages which had been formed previously. Thus the schistosity is a special combination of flow cleavage and fracture cleavage. The direction of plunge of cleavage intersections on schistosity planes have been demonstrated to correspond to the plunge of minor folds along the Murphy marble belt, allowing structural interpretations which have been obscured heretofore. It has been found that talc bodies of the area also plunge in accord with cleavage intersections.

The approximate stratigraphic center of the formation is occupied by a fine-grained, white, dolomitic marble which sometimes contains talc deposits. The lenticular tendency of talc bodies in the Murphy marble has been recognized. Indications are that these lenticular bodies have echelon arrangement with a "line of bearing" parallel to the strike of the marble in which individual lenses vary from the local strike in amounts depending upon the degree of plunge. Lenses that have been discovered thus far plunge either northeast or southwest at an average angle of about 18° from horizontal, varying from zero to as much as 35°. In order to explain the lenticular nature of the talc bodies, it must be realized that rock deformation seldom results from uni-directional forces, but rather from multi-directional forces which twist and either compress or pull apart.

The various talc deposits have internal structures which differ from place to place only in degree and direction. Van Horn assumes that talc formation took place during a lull in rock deformation near the end of the last great period of metamorphism (Carboniferous age) and that only slight movement occurred after the talc was in place. The theory allows for those few examples of massive talc which are known to exist.

The average grade of commercial talc in the Murphy marble is of high quality as compared to talc from other parts of the country. The color of the fresh talc varies from pure white (equal to standard magnesium carbonate) through greenish-white, green, blue and gray. Variation in color may be due in part to the refraction of light through minute fracture systems. In the large talc bodies the transition from talc to marble and/or quartz is gradational. Smaller isolated talc pockets and fingers have rims of mixed talc and wall rock, and "footwalls" and "hangingwalls" do not cause sharp contacts. On the other hand, changes in the quality of talc within a single body tend to be abrupt, and contacts between grades have plunges comparable to those of the parent masses of talc.

A more or less definite zoning within the Murphy marble has been revealed. Listed in descending stratigraphic order from top to base, a typical section of the marble, with accumulative depths is as follows:

Mica schist (ms)

0	feet	Transition zone
20	"	Actinolitic zone
105	"	Slaty zone
130	"	Mixed zone
155	"	White (talc-bearing) zone
200	"	Mottled zone
215	"	Gray zone
235	"	Blue zone
275	"	Coarse gray zone
305	"	Coarse white zone
330	"	Transition zone

Little crude talc is shipped from the Murphy area. Much of the talc is sawed into crayons, packed one gross to a carton, and shipped in crates of 24 cartons. All other talc is pulverized at from 90 per cent minus 100 mesh to 98 per cent minus 200 mesh and shipped in 50 pound paper bags. The pulverized talc is used principally in cosmetic, textile and food polishing industries. Small shipments sometimes are made to supply high grade talc in blocks for art work.

Mining and milling costs in recent operations are not available, but it is believed that normal estimating methods can be applied with a fair degree of accuracy. Accurate prices of processed talc can be obtained only through reputable buyers, but it is probable that the average price of talc products from the Murphy area exceeds $50. per ton, f.o.b. Murphy area, including both crayons and pulverized talc. Prices of pulverized talc are quite variable but talc crayons are fairly well stabilized at the quivalent of from $350 to $400 per ton in individual cartons. Talc reserves in the Murphy marble belt are more than adequate for long term operations. There is still plenty of room for additional exploration work with good chance of success as compared with other types of mineral exploration and much of the "guess work" has now been removed.

The prospector must realize that only in comparatively flat topography does the marble lie along a straight outcrop or "strike line". Such irregularities are caused more by differences in the altitude of the ground surface than by differences in strike and dip. Topographic effects cannot be overemphasized as one of the largest known talc bodies of the area was missed by two separate drilling programs because a "strike line" was followed without considering variations of surface elevation. The most reliable and economical way to prospect for primary talc, as for similar types of concealed mineral deposits, is by diamond core drilling. The preliminary target is a zone of white, possibly talc-bearing marble which may be as much as 40 feet thick. This white zone is identified by the sequence of blue, gray and mottled marble which is associated with it. Once the position of the central white marble zone has been established, additional hole locations will depend upon previous results, and some drilling footage may be conserved by including less of the barren section in subsequent holes. It is essential, however, that the white marble zone be encountered below top of bed rock in order that complete core recovery may be obtained in the critical horizon.

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

Core drilling Moore, Barton and Cornwall Property for block steatite talc.

20 holes to be put down at a depth of 250 to 300 feet (note: largest talc deposit located to date in Murphy Marble belt was below 250 feet)

20 holes x 300 feet = 6,000 total feet to be core drilled

Estimate 2.5 feet per working hour of 3 man crew based on past experiences in core drilling at Barton-Moore Mine.

6,000 feet ÷ 2 1/2 feet = 2,400 hours of drilling for 3 man crew

2,400 hours ÷ 50 hour work week = 48 weeks work

48 weeks - approximate 1 year

This allows 20 holes to be placed per year or 1 2/3 holes per month at a depth of 300 feet.

Total Costs-

Equipment to be purchased	$2,000.00	
Labor and Supervision	11,340.00	
Power, rentals, water, misc.	2,660.00	($222. per month)
	$16,000.00	

Estimated average cost per foot - $2.66

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

MACHINERY

Sullivan Air Compessor 10 x 12
60 H. P. Motor and Switches & Base
1 Eberhardt-Denver Speed Reducer with 5 HP Motor & Switch
Old Outside Core Drill (Sullivan)
New Outside Core Drill (Joy Mfg.)
Inside core drill (Sullivan)
Ford 1½ Ton Dump Truck
Drifter Drill & Post
Portable Compressor Unit
Ventilating Fan & 5 HP Motor
Gasoline Enginer-Hoist
Sullivan 4-Cylinder Air Hoist 7½ HP
Ingersoll-Rand Double Drum Scraper Hoist (electric)
One Steel Turntable for 24" Gauge track
Galvanized Tin Roofing - covering buildings
Mine Blower Fan
Gardner-Denver Air Hoist
1951 Dodge Pick-up
Double Drum Scraper-Hoist, Air
Electric Hoist for main shaft, Moore Mine
Pumps
3 tons steel rail
Miscellaneous drill steel, bits, etc.

BUILDINGS

(Moore Mine) Tipple House & Bins

(Cornwall Property) One dwelling house and surface rights

American Talc Company
1 River Street
Hoboken, N. J.

MF-103
Attachment #

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

(a) Rented

Portable Compressor Unit (9)	$1700.00
Drill - New Outside - Joy - (5)	4500.00
Drill - Inside - Sullivan (6)	1500.00
Dodge Pick-up - (18)	1580.00

(b) Purchased

Added piping and convert to BX Drill present drive 1 1/8" out 3/4" in	2000.00

(c) Furnished by you

Air Compressor - Sullivan (1)	2000.00
Motor & Switches, etc. (2)	1700.00
Drifter Drill & Post (8)	500.00
Truck - Ford (7)	750.00
Fan - Ventilating (10)	450.00
Fan - Mine Blower (16)	700.00
Hoist - Gasoline - Regal (11)	750.00
Hoist - Sullivan 4 cylinder (12)	500.00
Hoist - Ingersoll-Rand (13)	750.00
Hoist - Gardner-Denver (17)	900.00
Hoist - Double Drum Spacer (19)	1200.00
Hoist - Electric for main shaft	1500.00
Turntable (14)	125.00
Pumps (21)	500.00
Rail (22)	540.00
Miscellaneous (23)	200.00

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

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

LABOR	Monthly	Yearly
Analytical & Testing	50.00	600.00
*Accounting & Records	20.00	240.00
*Supervisor	75.00	900.00
*Consultant	50.00	600.00
*Foreman	50.00	600.00
3 man crew	600.00	7,200.00
miscellaneous labor	100.00	1,200.00
TOTAL	945.00	11,340.00

*Estimated on basis of shared cost with Regal Mine application

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

There is reason to believe that high quality block steatite talc would be available in the Murphy Marble Belt area. The published geological surveys show the presence of talc in this section.

An exploration loan has been granted for another project located within this same area as it was established that there is the possibility of securing the strategic type of block steatite. Evidence also exists to confirm this in that the American Lava Company of Chattanooga, Tenn., formerly obtained steatite quality talc. Further indication of the presence of a massive type of material is shown by the availability of ore of a quality suitable for cutting crayons. Even though the ore for cutting crayons is not satisfactory for firing, its presence indicates a massive type of formation in the Murphy Marble Belt which, in spots, very likely could be dense enough for satisfactory firing.

Reference should also be made to the fact that the printed geological surveys only go to depths of approximately 75-100 feet. However, core drilling since the days of the most recent publication have disclosed the largest deposits of talc yet located in North Carolina to be at depths of 250-300 feet. Hence, it is deemed desirable to core drill to this depth.

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA

FOR USE UNDER THE

DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-2544

Date received 5-22-52

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAY 22 1952

American Talc Company
77 River Street
Hoboken, N. J.

Name and address of applicant

Date May 5, 1952

INSTRUCTIONS

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

GENERAL TECHNICAL DATA

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

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products? talc crayons, ground talc
   (*b*) What are the byproducts, if any? none
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following: see form MF-103
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following: see attachment #1
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated. see attachment #2
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production see attachment #3

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators: see attachment #4

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History: see form MF-103
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

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

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
M. Woodward Glenn	President						
Joseph Ferry	Vice Pres. Treasurer						
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues: none

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1950 ~~1948~~ Total (b)	1951 ~~1949~~ Total (c)	1952 ~~1950~~ Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	ground talc	400 T	600 T	350 T	
2. Quantity of product processed (specify unit of measure and type of process)	sawed crayons	--	$30,000.	---	
3. Quantity and grade of product sold or shipped (specify units of measure)					

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

12. Ore or Mineral Reserves: see form MF-103 also Bulletin #56

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

BARTON MINE

3. For each operation listed above supply the following:

(a) Distance and direction from nearest city.

4,600 feet southwest of Regal Station

(b) Mining district

Murphy Marble Belt

(c) Township, Section, Range

(d) County, State

Cherokee, North Carolina

MOORE MINE

See above - Barton Mine

CORNWALL MINE

See above - Barton Mine

4. State whether or not property is now in operation, by whom operated.

North Carolina Properties:

BARTON MINE

Barton mine is not in operation.

(a) owned by H. A. and Ada Barton

(b) leased by American Talc Company

MOORE MINE - operating

(a) owned in part by J. B. Moore and Southern Railway System

(b) leased by American Talc Company

CORNWALL MINE - not operating

(a) owned by American Talc Company

(b) mineral royalties paid to Cornwall family.

5. Number of years in production.

Barton Mine, N. C. - never an active mine

Moore Mine, N. C. - operated since 1949

Cornwall Mine, N. C. - surface not known

5. State experience of operators.

The American Talc Company while a new organization (1950) has men highly experienced in talc as executives.

Mr. M. Woodward Glenn is President of the Georgia and the Southern Talc Companies in Chattsworth, Ga. He has been active in talc prospecting, milling and mining for 18 years. His father started the operations, so his contacts with talc producing ore are those of a lifetime. Mr. Glenn served on talc Industry Advisory Committees of both WPB and OPA during War II.

Complete descriptions of Mr. Glenn's talc operations in Georgia are given in "Talc Deposits of Murray County, Georgia" by A. S. Fircon and K. H. Teague, Bulletin #53 of the Geological Survey published 1947.

Special notice should be made that Mr. Glenn has long been a major producer of Talc (soapstone) crayons. The mining of ore for this type of product is the same as mining block, steatite talc for it requires recovery of large, blocks of massive type ore without shattering or fracturing.

Mr. Newman R. Davis the Supervisor in North Carolina, has been actively doing this type of work since 1932 in both North Carolina and Georgia. He is recognized as an outstanding, practical talc miner.

Mr. Joseph Ferry has been connected with talc over many years through the Imperial Talc Company and Charles Mathieu, Inc., the principal importer of Italian Talc in the United States. Mr. Ferry helped form the American Talc Company due to the dangers of the international situation and the possibilities that all qualities of Italian Talc, both block steatite and ground, might again be cut off in the event of hostilities.

Mr. W. Wallace Roff has been working with talc since 1923. As a Vice President of Whittaker, Clark & Daniels, Inc., large sales-distributors for both domestic and imported talcs. This company for many years were the largest importers of Indian Block Steatite Talc. Therefore, Mr. Roff is exceptionally experienced with the problems in connection with this material.

The American Talc Company is a non-operating company. The Southern Talc Company has been contracted to handle all operations including prospecting, mining and milling in North Carolina.

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

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

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

TOTAL ORE OR MINERAL RESERVES

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

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads. all mines are served by A-1 access roads

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year. Water supply available at all times of the year for core drilling.

15. Power:

State amount of power used, rate per hour, and source thereof. serviced by T.V.A. area - ample

16. Labor: see form MF-103

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

17. Equipment and Facilities: see form MF-103

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

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

see form MF-103

CERTIFICATION

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

American Talc Company
(Name of company)

By Joseph R Ferry
(Signature of authorized official)
Joseph Ferry

May 16 - 1952
(Date)

Vice President & Treasurer
(Title)

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

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

H. A. Barton (SEAL)

Ada Barton (SEAL)

AMERICAN TALC COMPANY, INCORPORATED

BY M. Woodard Glenn
PRESIDENT

ATTEST:

Regina B. Glenn
SECRETARY

NORTH CAROLINA,

CHEROKEE COUNTY.

I, A. F. Hembree, a Notary Public in and for said State and County, do hereby certify that H. A. BARTON and wife, ADA BARTON Personally appeared before me this day and severally acknowledged the due execution by them of the foregoing and annexed Contract and Option Agreement for the purposes therein expressed.

Witness my hand and Notarial Seal, this the 4th day of ~~November~~ Dec, 1951.

A. F. Hembree
NOTARY PUBLIC

My commission expires:
My Commission Expires Mar. 17, 1953

STATE OF GEORGIA,

COUNTY OF Murray.

I, Carl B. Tankersley, a Notary Public of said State and County, certify that Regina B. Glenn personally came before me this day and acknowledged that he is Secretary of AMERICAN TALC COMPANY, INC., 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 _____ self as its Secretary.

Witness my hand and Notarial Seal, this the 6th day of December 1951.

Carl B. Tankersley
NOTARY PUBLIC

My commission expires:
My com. expires June 8, 1952

STATE OF NORTH CAROLINA,
CHEROKEE COUNTY.

THE foregoing certificate of Carl B. Tankersley, a Notary Public, Justice of the Peace of and A. F. Hembree, a Notary Public of Cherokee County, North Carolina, Murray County, in the State of Georgia, attested by his Notarial seal is adjudged to be sufficient. Let the instrument and certificate be registered.

Witness my hand at office in Murphy, N. C., this the 10 day of December, 1951.

_____ Clerk Superior Court

NORTH CAROLINA,

CHEROKEE COUNTY.

THIS CONTRACT AND OPTION AGREEMENT, made and entered into this 27th day of November, 1951, by and between

H. A. BARTON and wife, ADA BARTON, of the County of Cherokee and State of North Carolina, hereinafter termed "LESSORS,"

and

AMERICAN TALC COMPANY, INC., a Corporation of the State of Georgia, having an office and principal place of business at Chatsworth, Georgia, hereinafter termed "LESSEE,"

W I T N E S S E T H:

That Lessors, for an in consideration of the sum of ONE DOLLAR and other valuable considerations to them in hand paid by Lessee, the receipt of which is hereby acknowledged, do hereby grant, demise and lease unto said Lessee, its successors and assigns, from the date hereof until August 1st, 1952, the sole and exclusive right of entering upon, exploring for, prospecting and diamond drilling for, and doing all necessary or proper exploratory work in seeking to find merchantable talc, on, in, or under the following described tract of land in Murphy Township, Cherokee County, North Carolina, to-wit:

Lying in Murphy Township, Cherokee County, 2.2 miles from Murphy, North Carolina, on State Highway No. 10, U. S. 19, BEGINNING on N. E. corner on Iron pin set in concrete 30 feet from center line of said highway No. 10, U. S. No. 19, and runs N. 60 degrees and 30 " West 399.3 feet to another iron pin set in concrete; thence N. 24 degrees and 52' W. 399.0 feet to another iron pin set in concrete; thence N. 17 degrees and 51' E. 289.2 to another iron pin set in concrete; thence N. 32 degrees and 59 W. 306.1 feet to another iron pin set in concrete being 100 feet from center line of Southern Railroad, this being right of way of Southern Railroad; thence S. W. with this right of way of said railroad 771.0 feet to another iron pin set in concrete; thence S. 45 degrees and 02' 00" East 1172.9 feet to another iron pin set in concrete on the right of way of N. C. Highway No. 10, U. S. 19; thence with this right of way 337.0 feet, more or less to the beginning, containing 11.4 acres, more or less.

And also conveying to Lessee all such right and title as Lessors may have to the strip of land lying between the above described lands and the Southern Railway tracks, and covered by the right of way of the Southern Railway Company.

EXCEPTING AND RESERVING, for the use and benefit of the Receivers of the Cherokee Iron & Marble Company and their successors, heirs and assigns, the right to use the old public Road across the tract of land above mentioned, and near the tracks of the Southern Railway Company, as means of access to the other lands of the Cherokee Iron and Marble Company, its successors and assigns, and also the right to use as such of means of access any road which said Grantors may have constructed over said lands leading away from State Highway No. 10.

[illegible] aforesaid, have given and granted, and do hereby [illegible] unto Lessee, its successors and assigns, during said period until August 1, 1952, full rights of ingress, egress and regress into, upon and over the said lands above described for the purpose of exploring and prospecting for, and diamond drilling for merchantable talc on or under any or all parts of said lands.

Lessors, for the said consideration, have further given and granted, and do hereby give and grant unto Lessee, its successors and assigns, the exclusive option and right to be exercised at any time on or before August 1, 1952 of leasing from Lessors the sole and exclusive right to prospect for, mine, refine and remove all merchantable talc, in, upon, under and from the said lands hereinabove described, upon the terms hereinafter set out, and in the event Lessee exercises this option, it is mutually agreed by and between the parties hereto that said lease, in addition to the formal parts and names of the parties, shall contain the following provisions, and none other:

1. That the termof this lease is for a period of Five (5) years from August 1, 1952, with option to extend, as hereinafter provided, together with privilege of termination, as hereinafter set forth.

2. That Lessee, its successors and assigns, during the term of this lease, and any extension or extensions thereof, has been given and granted the exclusive and uninterrupted right of prospecting for, drilling for, mining, refining, and removing talc from the lands above described, together with full rights of ingress, regress and egress to, into, upon, through, under and from said lands, with the right to use all existing roads, and the right to construct any and all necessary or convenient roads, tram-roads, flumes or chutes necessary or convenient to be used in connection with such exploring and mining operations; together with the right and privilege, free of further charge, to use water on and under said land in necessary quantities for all purposes connected with said mining operations necessary to complete enjoyment of the rights and privileges herein granted for operating, mining, refining, preparing and removing the talc on and under said lands for the market; together with the further right and authority to erect all necessary buildings and structures on said lands necessary or convenient to be used in connection with such mining operation, and also the right to set up and use on said lands machinery and other mining equipment, together with the right, upon determination or expiration of this lease, or

any extension or extensions thereof, to remove said machinery, equipment, buildings and structures from said lands; together with the right to make all necessary mining holes, excavations, shafts and dumps.

3. That Lessors do hereby give Lessee, its successors and assigns, for and during the term of this lease , and any extension or extensions thereof, the right to erect such buildings, plants and structures, to build such roads, railroads, tram-ways, and such trams, flumes and chutes as Lessee may determine to be needed, necessary or convenient for carrying on mining operations and preparing the products thereof for the Market, together with the right to make dumps, excavations, and create dump piles where necessary, all without being held liable for damages.

4. Lessee has agreed and does hereby agree to pay Lessors, their nominee or personal representative, during the continuance of this lease, or extension or extensions thereof, as rental, royalties as follows:

THREE ($3.00) DOLLARS per ton of TWO THOUSAND (2,000) pounds for clear, unstained talc, and ONE and 50/00 ($1.50) Dollars per ton of TWO THOUSAND (2,000) pounds for broken, stained, or otherwise contaminated or yellow talc removed from said lands.

5. It is further mutually agreed by and between the parties hereto that there will be no minimum royalties charged or payable until after August 1, 1952, unless actual mining operations commence prior to said date, if and when, only the royalties at the above specified rates shall be charged and paid on talc actually removed from said lands; but after August 1, 1952, Lessee shall pay Lessors a minimum royalty of Fifty ($50.00) Dollars per month commencing as of August 1, 1952 and continuing during the term of this lease and any extension or extensions thereof for each month this lease remains in force, but the Lessee, however, shall have the privilege during any succeeding month or months of removing free from royalty a sufficient quantity of talc over and above the quantity required to yield the minimum royalty for said months at the rate of tonnage royalty hereinabove provided for in Article Four hereof, to reimburse it for any deficiency that may have occurred in any preceding month or months; PROVIDED, HOWEVER, that for the purposes of the foregoing provision each twelve months period shall constitute a fiscal year and an independent unit and no

payments in excess of the minimum annual royalty for any one year shall be credited against a deficiency in any subsequent year.

6. Lessee agrees to weigh all talc removed from said lands under this lease on standard scales and to keep accurate records of said weights and accurate books and records showing the amount of talc and grade of talc removed from said lands. These records shall be the basis on which Lessee shall settle with Lessors for talc removed, and Lessors shall have access at all reasonable times to such books and records of Lessee.

7. Lessee agrees to pay Lessors on the 15th day of each month at the said rates per ton for all talc removed during the preceding calendar month: PROVIDED, HOWEVER, if the royalties at said rates per ton for said month shall not amount to as much as the minimum royalty, then Lessee in lieu of such tonnage royalty for such month shall pay the minimum royalty.

8. Lessors do hereby agree that Lessee, its successors and assigns, shall have and hold the said rights, privileges, and easement and estate here granted for and during the said term of Five years from August 1, 1952, unless sooner terminated.

9. That if Lessee has paid all installments of rental and royalties theretofore due and has done and performed all matters and things herein specified to be done and performed by it, it may at any time terminate this lease by giving to Lessors Thirty (30) days written notice of its intention so to do.

10. If all installments of rental and accrued royalties theretofore due have been paid and all other conditions of this lease have been properly complied with by Lessee, the Lessee may, at its option, extend this lease for not more than two (2) additional periods or terms of Five (5) years each, by giving to Lessors by registered mail at their last known address written notice of its intention to extend. Said notice to be given at least Thirty (30) days prior to the end of the term. Should Lessee elect to exercise this option and extend the term of this lease, as hereinabove provided, the first extended term shall be for a period of Five (5) years and shall commence at the expiration of the term herein granted. If at the end of the first extended term Lessee should elect to extend this lease for a second additional period of Five (5) years, then and in such event said second extension or extended term shall begin

at the expiration of the first extension or extended term. In the event of such extension or extensions all the terms and conditions of this lease herein set out shall continue in full force and effect.

11. It is expressly agreed that if Lessee shall neglect or fail to make any payment of rental or royalty when due, or neglect to do or perform any matter or thing herein agreed to be done or performed by it, and shall remain in default thereof for a period of Thirty (30) days after written notice sent by registered mail to its last known mailing address calling attention to such default, Lessors may declare this lease terminated and cancelled and take possession of said premises without prejudice to any other legal remedy that they may have on account of such default.

12. In the event Lessee shall elect to exercise the option herein granted notice of such intention shall be given to Lessors by registered mail on or before August 1, 1952.

13. Any and all notices herein called and provided for may be given by registered mail addressed to the party or parties for whom such notice was intended at their or its last known mailing address. All such notices shall be deemed to have been given and received as of the date same was mailed.

14. Lessors, for themselves and their heirs, executors, and administrators, covenant and agree to and with Lessee, its successors and assigns, that they own said lands above described in fee simple, and that the said lands, together with the mining interest thereon, are free and clear and discharged from any and all encumbrances, and that they have full right and power to make this lease and that they do hereby warrant unto Lessee, its successors and assigns, the said mining rights, easements and privileges herein granted, and that they will forever warrant and defend the title to the property, rights, privileges and easements hereinbefore described and conveyed against the lawful claims of all persons whomsoever.

15. Lessors, for themselves, theirheirs, executors, and administrators, covenant and agree to and with Lessee, its successors and assigns, to place Lessee in the peaceful possession of said land for the purposes aforesaid, and do covenant and agree to protect Lessee against any interference with its mining operations by their tenant or tenants, or any other person claiming by, through, or under them.

16. The royalties or minimum rental shall be payable to Lessors, their personal representative, nominee, or assigns, by check or draft, and such payments

may be made at the Citizens Bank and Trust Company, Murphy, North Carolina, or its successors, on or before the 15th day of each calendar month during the term of this lease, or extension or extensions thereof; notwithstanding the death of Lessors, or their successors in interest, the payment or tender of rentals in the manner provided above shall be binding on the heirs, devisees, executors and administrators of such persons, it being expressly understood and agreed that this lease shall enure to the benefit of and be binding upon the parties hereto, their heirs, executors, administrators and assigns.

17. During the term of this lease, Lessors shall pay all taxes and assessments upon the land covered by this lease, and Lessee shall pay all taxes upon the buildings and machinery placed upon said land by it as herein provided.

18. It is expressly agreed that if at any time during the term of this lease Lessee, or its successors or assigns, should be adjudged bankrupt or insolvent by any Federal or State Court of competent jurisdiction, Lessors may at their option declare this lease cancelled and take possession of said premises.

19. Lessors have agreed and do hereby agree that Lessee may terminate this lease at any time upon giving thirty (30) days written notice to Lessors, sent by registered mail to their last known mailing address, and in the event of the death of either or both of Lessors, Lessee may terminate this lease by sending such notice to the personal representative of Lessors, or the assignee of Lessors, or by an instrument surrendering its rights hereunder executed by it and recorded in the office of the Register of Deeds of Cherokee County, North Carolina, such termination to take effect thirty (30) days after the filing by Lessee of such instrument in said office for registration. In the event of termination, Lessee shall have a period of Sixty (60) days thereafter within which to remove any or all of its machinery, equipment, buildings and structures from said lands.

20. Lessee has agreed and does hereby agree that it takes the estate herein demised subject to all easements, roads and railroads that may be outstanding.

In Testimony Whereof, Lessors have set their hands and seals and Lessee has caused this contract to be signed by its president and its corporate seal to be hereto affixed, and attested by its Secretary, this the day and year first above written.

NORTH CAROLINA
CHEROKEE COUNTY

This indenture, made this the 22 day of February, 1950, by and between J.B.Moore and wife, Bessie Moore, of Cherokee County, North Carolina, and Francis T.Glenn, of Dalton Georgia;

Witnesseth: That the said J.B.Moore and wife Bessie Moore have leased and demised unto the said Francis T.Glenn, and the said Francis T.Glenn has hired from the said J.B.Moore and wife, Bessie Moore, all mining privileges for talc upon the lands hereinafter described, which said mining privileges were reserved unto the said J.B.Moore and wife Bessie Moore in conveyance by them to Columbia Marble Company, dated September 3, 1949, together with the additional mining rights and privileges upon two additional acres of land not incorporated in said Columbia Marble Co.deed, upon which the dwelling house of J.B.Moore and wife, Bessie Moore is now situate, said additional two acres being described in a deed from J.H.McGee and D.Witherspoon, receivers of Cherokee Iron and Marble Company, it being the intention to lease the right to mine and remove talc from the lands described in the deed dated September 3, 1949, from J.B.Moore and wife, Bessie Moore, to Columbia Marble Company, as well as the lands described in the deed from J.H.McGee and D.Witherspoon, receivers, above referred to, to have and to hold unto the said Francis T.Glenn, his successors and assigns for a period of five years from March 1, 1950, with privilege of extension for additional period of five years, at the rentals and subject to all the terms, covenants and conditions as agreed and as embodied in a lease of even date herewith. This is a memorandum of lease of even date herewith which said lease has not yet been executed, it being the intention of said parties by this memorandum to bind themselves pending the preparation and execution of the contract of lease.

In witness whereof, the parties hereto have caused this instrument to be executed under their signatures and seals the day and year first above written.

ATTEST:

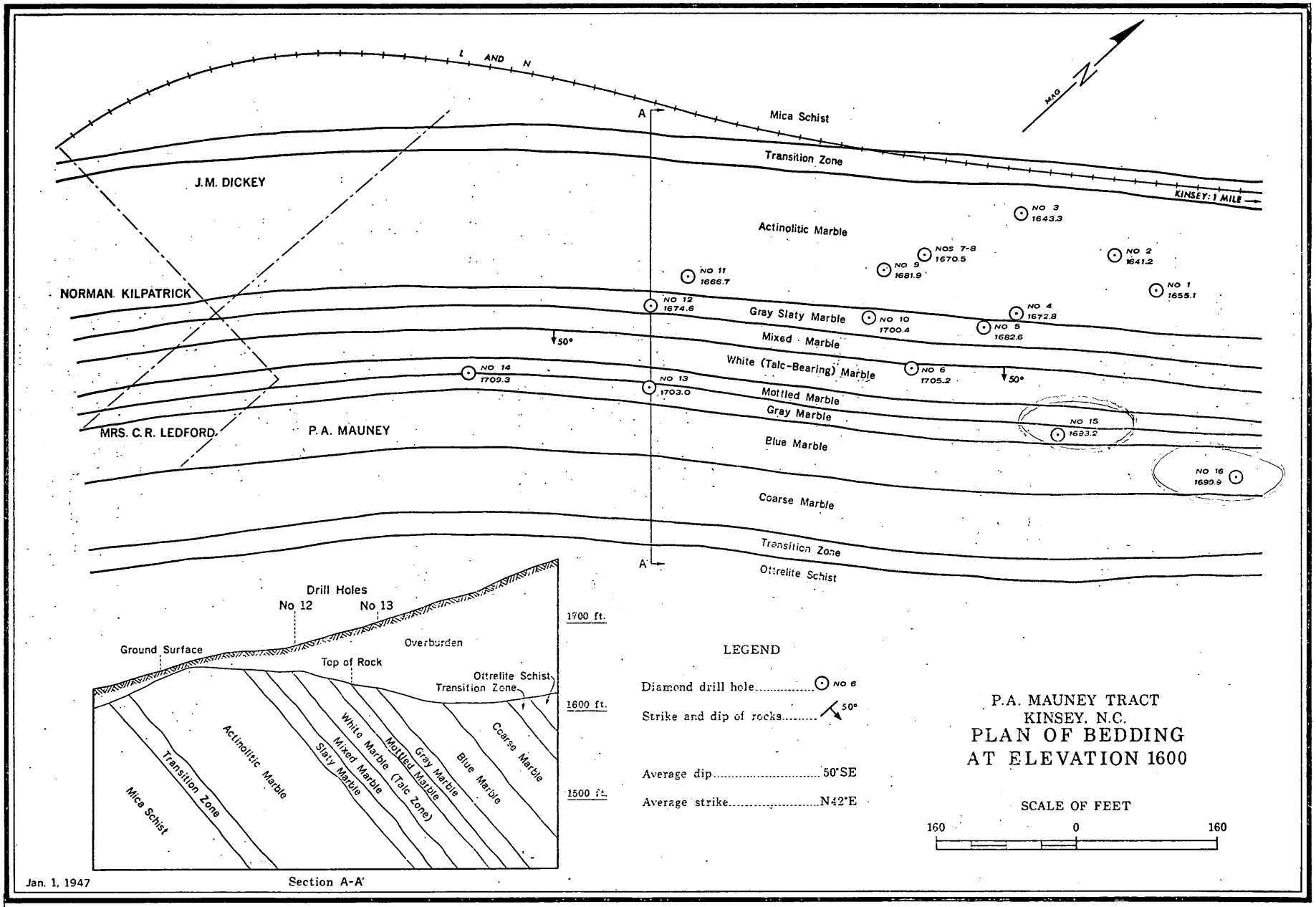
N.B.Davis — J.B.Moore (SEAL)

R.L.Elliott — Bessie B. Moore (SEAL)

Francis T. Glenn (SEAL)

Grandview Mines
310 Radio Central Bldg
Spokane 4, Wash.

DMA Exploration Loan Application



CARTOGRAPHY BY TVA MAPS AND SURVEYS DIVISION

PLATE 1

LOCATION No. 3

In a railroad cut, one mile northeast of Culberson and 500 feet southwest of an L&N railroad trestle over Rapier Mill Creek, talc lenses and stringers up to 18 inches across crop out in a clay bank. Occasional ledges of marble are exposed in the cut and there is a small abandoned marble quarry 1,000 feet to the southwest. It is reported that the marble quarry did not reveal talc signs of any kind and that the marble was dark gray, white, and multicolored. On the basis of talc exposures in the railroad cut, three core holes were drilled between the talc outcrops and the marble quarry but no success was achieved and core records were not preserved.

LOCATION No. 4

In the fall of 1945 and spring of 1946 the Mauney Mining Company did a little over 2,600 linear feet of core drilling for talc on the land of P. A. Mauney, about 1,500 feet southwest of Kinsey. The first 12 holes were located from the appearance of talc fragments in the overburden in a nearby railroad cut. A ledge of tremolitic marble in the railroad cut also showed small scales of talc. These first holes, accounting for 1,875 linear feet, intercepted nearly all of the upper stratigraphic half of the overturned marble formation without showing more than an inch of talc. These first holes, however, were of especial value when correlated with information from other sources, and they represented a key to the subdivision of the marble formation. As a result of the newly acquired data, four additional holes were drilled and the talc-bearing horizon was intercepted, although no talc was found. More than 1,000 feet of strike length remains to be explored on this property to the northeast toward the old Kinsey Mine, and there is no reason to assume that additional work would be illogical if close geologic control is maintained and if the data from previous drilling are utilized.

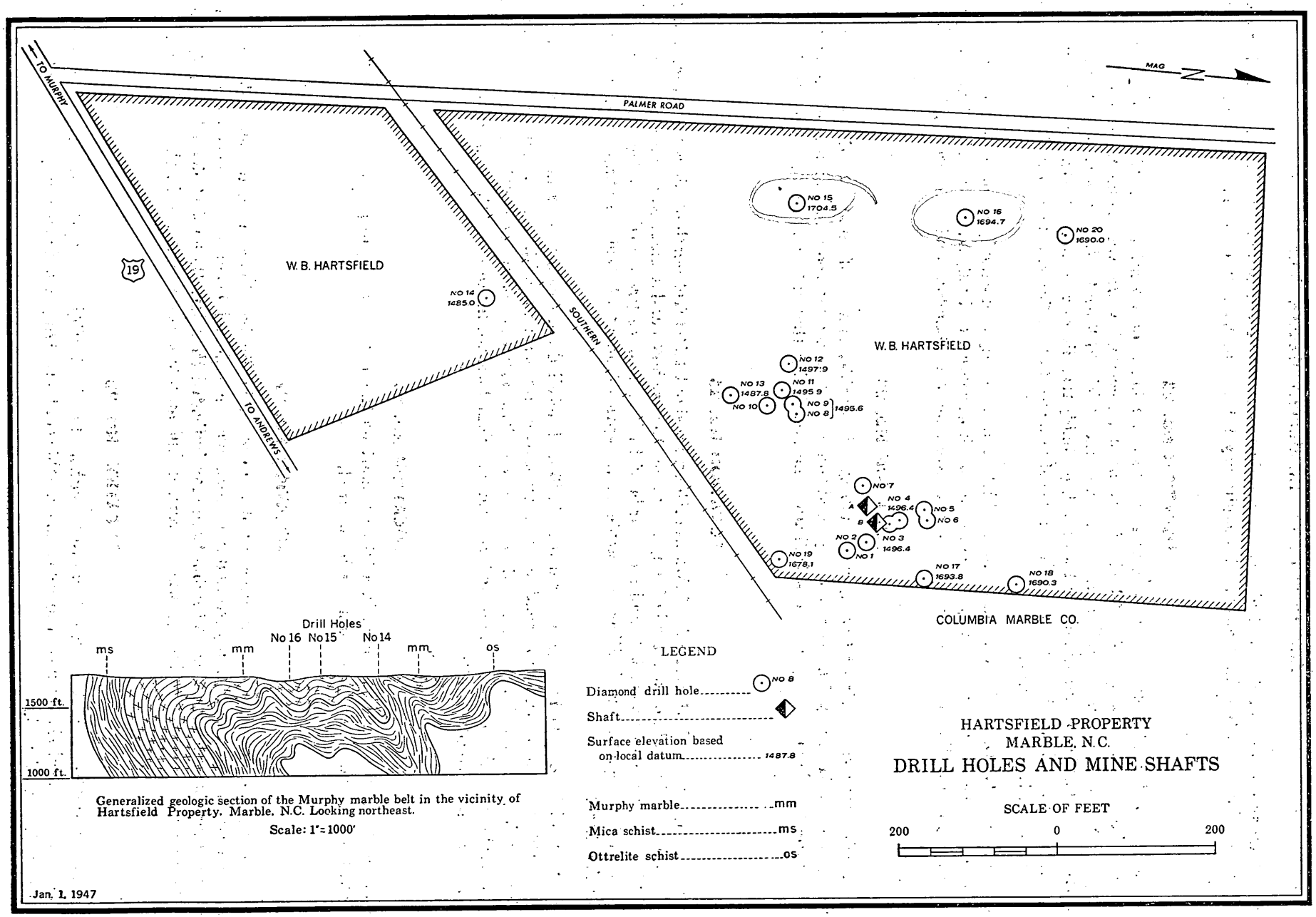
LOCATION No. 5

Near the southwest bank of the Nottely River, downstream from Hall's Ford and 300 feet northeast of Kinsey, an abandoned marble quarry now occupies the approximate site of the old Kinsey Talc Mine. A number of old caved shafts or pits can be seen for 100 feet southeast of the quarry. The quarry seems to include a small part of the white marble zone, full sections of the mixed zone and slaty zone, and a part of the actinolitic zone. One four-foot ledge of silicified marble can be seen on the caved southeast wall of the quarry and five lenses of talc, from three inches to twelve inches thick, crop out in the same place. Quantities of soft talc appear on the surface and in clay overburden, but these may come from the spoil of the older workings. Three core holes were drilled by the Cherokee Minerals Company in 1938 but core recovery was poor and no signs of talc were revealed. Two of the holes were located southeast of the L&N Railroad, and the third hole was on the northwest side nearer the quarry. It is believed that these core holes were not indicative and that additional prospecting would not be out of order.

When J. H. Pratt visited the Kinsey Mine around 1900, he reported that the talc lay in flat lenses wholly within the marble and associated with siliceous material. There were two tunnels, one 75 feet long, at levels 10 feet apart. Pratt reported that some of the talc blocks weighed a thousand pounds and that the mill produced six tons of "flower" talc per day. The workings probably extended under the L&N railroad.

LOCATION No. 6

The Carolina Talc Mine is also known locally as the Bailey Mine, Notla Mine, and Kinsey Mine (not to be confused with Location No. 5). It is situated on the right floodplain of the Nottely River 3,000 feet northeast of Kinsey and 1,900 feet west of Rogers Chapel. The first reported prospecting was done by H. S. Predmore and/or the Binney and Smith Company around 1907-08, and the first shaft was sunk in 1916. From 1926 until 1934 the property was operated through the Notla Talc Company by Binney and Smith. The Carolina Talc Company took over the property in 1934 and carried on successful operations until July 23, 1938, when high water from the Nottely River spread out over the flood plain, caving the mine from the surface and flooding it. Hiwassee Dam was nearing completion at the time and no attempt was made to resume operations since the surface level at the mine soon would be under six feet of water. It was estimated at the time that about 25,000 tons of talc remained underground, but more recent studies indicate that more complete core drill information probably would have resulted in higher estimates.



Generalized geologic section of the Murphy marble belt in the vicinity of Hartsfield Property. Marble. N.C. Looking northeast.

Scale: 1"=1000'

CARTOGRAPHY BY TVA MAPS AND SURVEYS DIVISION

PLATE 7

mately 200 linear feet of trenches and pits have been dug to an average depth of eight feet, disclosing heavily tremolitic talc similar to that at Maltby. Tremolite crystals as much as 20 inches long have been found here.

LOCATION NO. 23

Across the dirt road mentioned above, and 350 feet northeast of Location No. 22, three shafts of unknown depth have been sunk for talc. The first, and most successful, work was done by the Biltmore Talc Company, of Asheville, North Carolina, at about the time of World War I. It is reported that several drifts opened from the shaft at about the 60-80 foot level, probably trending northeast since the talc was supposed to have plunged northeastwardly at a low angle. Several hundred tons of "good grade cosmetic talc" is supposed to have been taken from the mine.

Around 1940, W. O. Hoffman sunk a shaft which was superimposed exactly upon the old Biltmore shaft, but operations were stopped before any development work was done. In 1946, W. A. Sherril, of Murphy, began a shaft to the north of the Biltmore location but this work too was abandoned without finding talc.

LOCATION NO. 24

About 600 feet west of Hyatt Creek, in the village of Marble, shafts of unknown dates were sunk on either side of U. S. Highway 19. It is not reported that talc was encountered although a mottled marble outcrop under the trestle across Hyatt Creek indicates the possibility that talc could be present in the general area.

LOCATION NO. 25

On property of W. B. Hartsfield, of Atlanta, Georgia, about 1,500 feet north of Moss Cemetery and 1,500 feet southwest of the Columbia Marble Company plant, 13 core holes and a shaft were put down around 1944. The drill holes did not intercept talc and no records of the cores were preserved, but the shaft encountered boulders of talc, tremolite, and siliceous marble at a depth of about 55 feet. Definite bed rock was not found in the shaft.

Several additional core holes were drilled in 1946 and detailed core logs were made. Core data showed that the marble formation was in normal position (not overturned) and subject to broad folding, and that any original talc at the specific location had been eroded. Talc encountered in the shaft apparently was transported material contained in alluvium and residuum. This does not mean that other talc deposits could not be in place in the general vicinity.

LOCATION NO. 26

It is reported that talc was found in a 66 foot shaft on the J. F. Palmer property, but reliable information about the general conditions could not be secured.

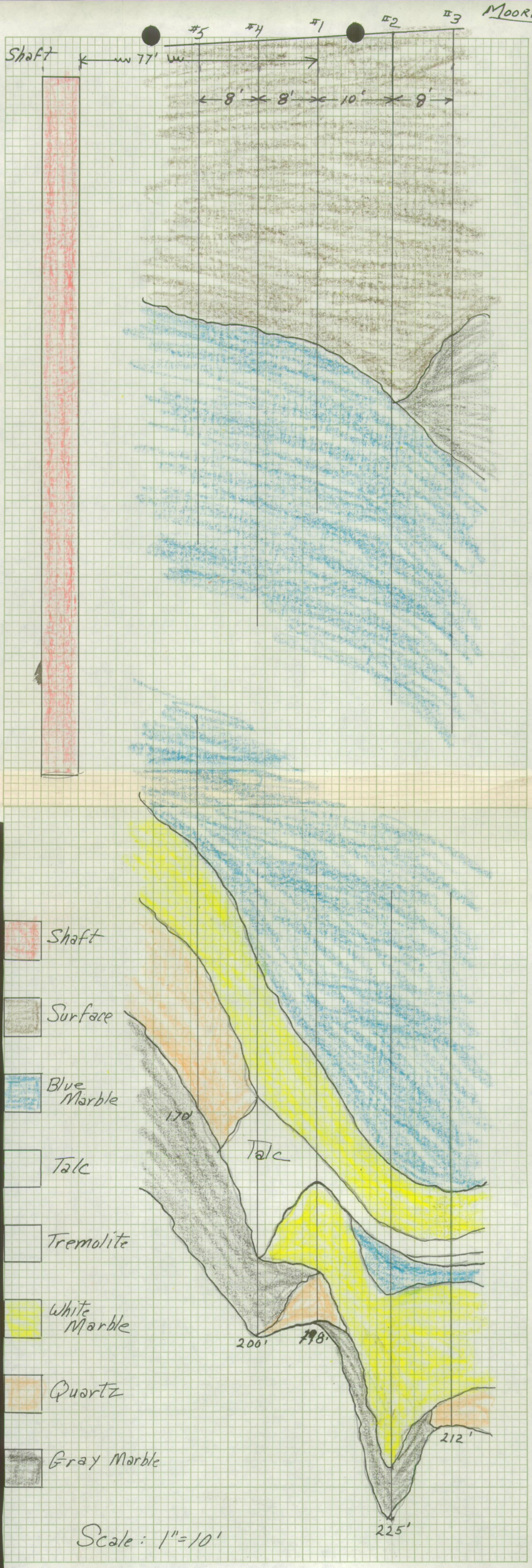
LOCATION NO. 27

J. W. Bailey put down a shaft on property of the Columbia Marble Company and some talc was found, but the shaft was located in swampy ground and work was abandoned because of excessive water. Later diamond drilling for marble by the Columbia Company indicated that Mr. Baileys' choice of a shaft site was logical so far as the marble's lithology was concerned, but no talc was encountered in the drill holes.

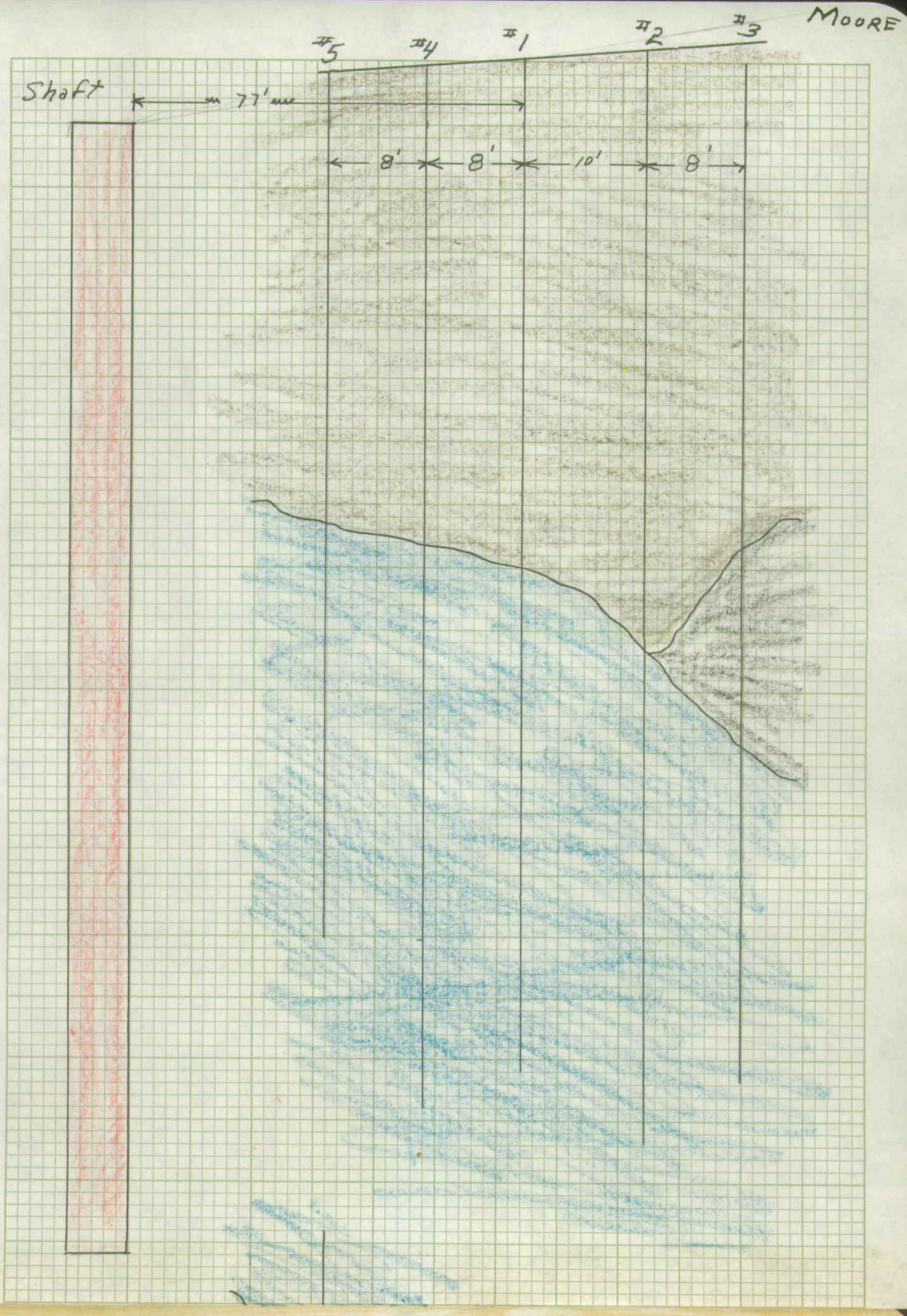
LOCATION NO. 28

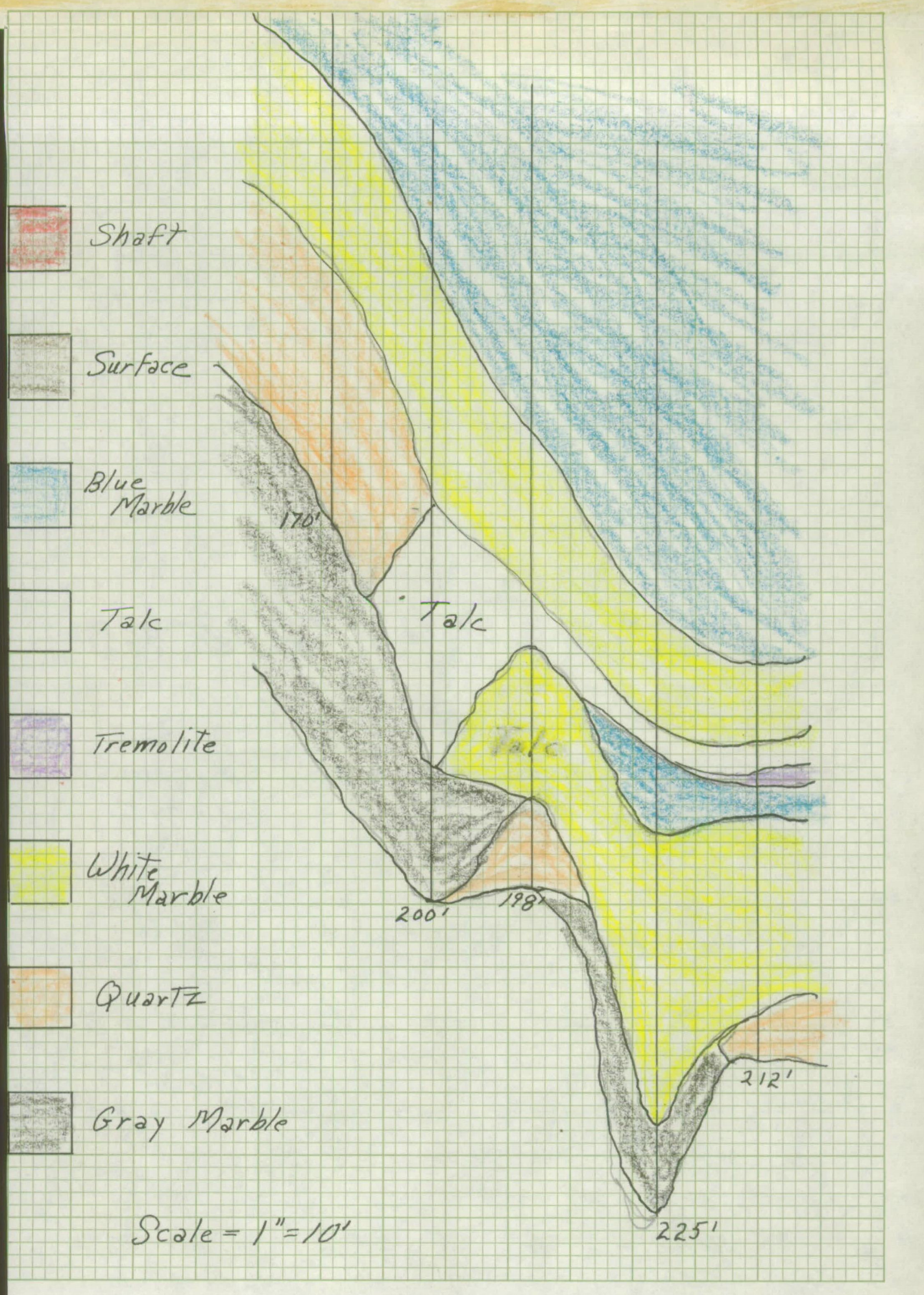
On Junaluska Creek, at Andrews, 3,500 feet southwest of U. S. Highway 19, the Weber Company, of New York, put down several shafts near the southeast marble contact. Only a sericitic and possibly talcose, black and green slate was found.

MOORE



No. 5780-10
10 SQUARES TO THE INCH
Made in U. S. A.





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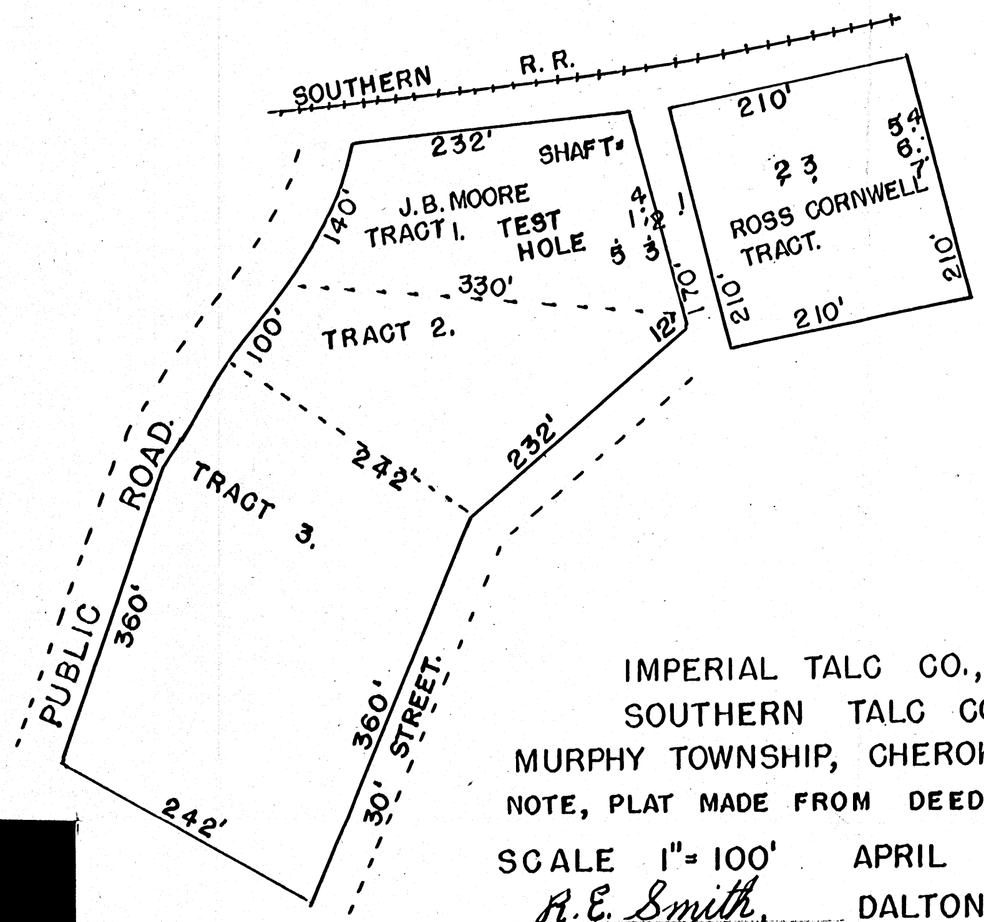
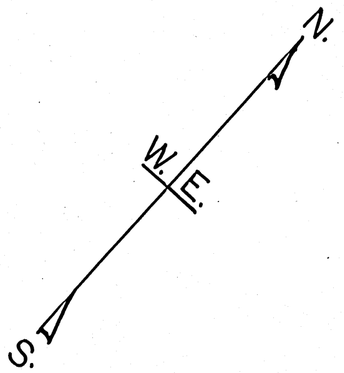
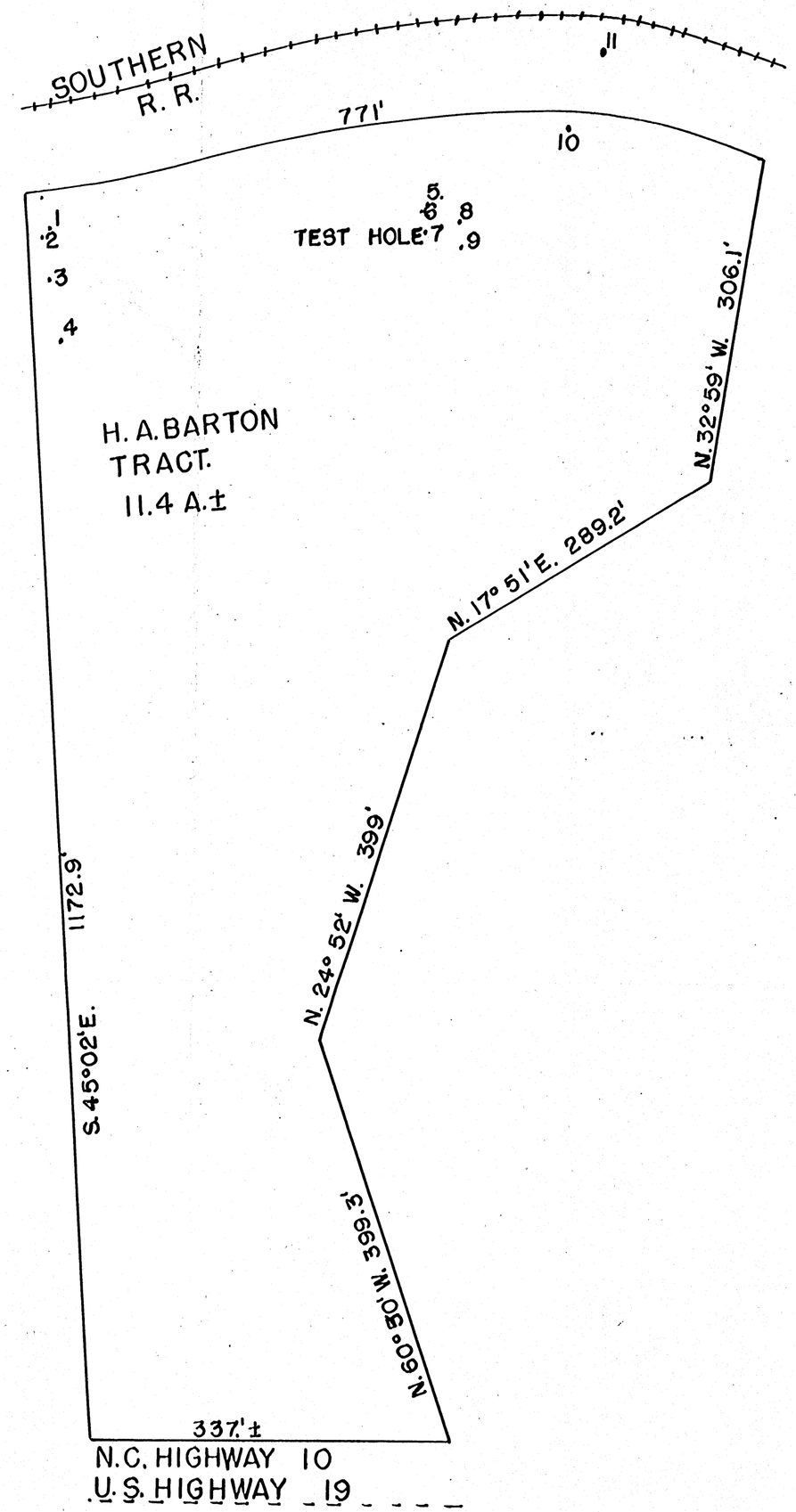
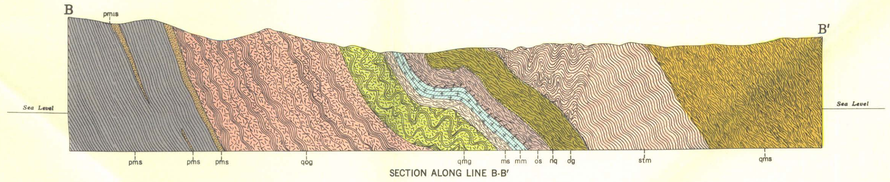




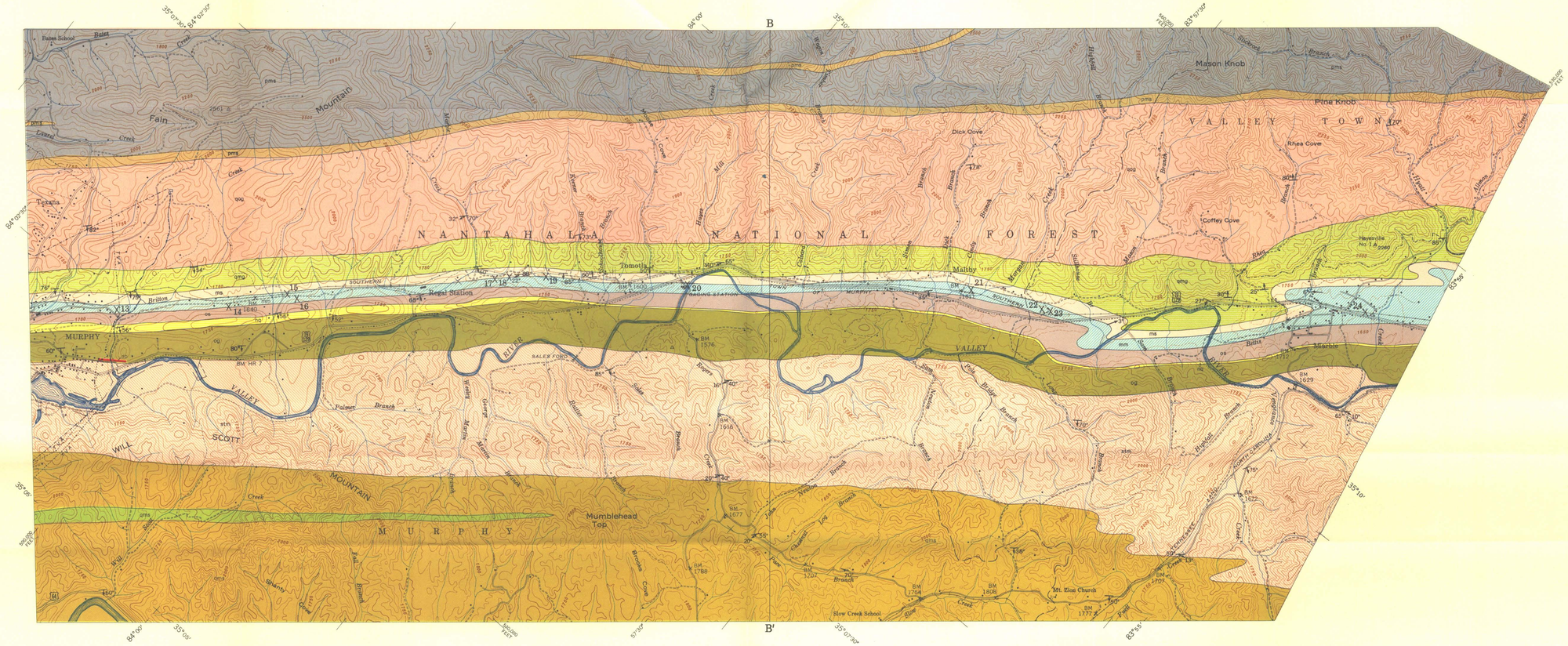
IMPERIAL TALC CO., INC.
SOUTHERN TALC COMPANY, INC.
MURPHY TOWNSHIP, CHEROKEE COUNTY, N.C.
NOTE, PLAT MADE FROM DEEDS.

SCALE 1" = 100' APRIL 1952.
R.E. Smith, DALTON, GEORGIA.
REGISTERED, SURVEYOR 262,
CIVIL ENGINEER 725.





SECTION ALONG LINE B-B′



LEGEND

do — Diorite
(dark gray sills or dikes; best exposed near Murphy and Hewitt)

qmg — Quartz-mica gneiss
(essentially gneiss with beds of massive quartzite; arkosic at base; has distinctive flat-lying recumbent folds)

os — Ottrelite schist
(coarse brown mica schist with abundant ottrelite and minor but uniform amounts of pyrite; grades into formations on either side; limonite beds in residuum)

stm — Staurolite-mica schist
(light colored with thin beds of feldspathic quartzite; occasionally gneissic; chloritic and sericitic west of Murphy; mica schist and quartz schist east of Andrews)

pms — Phyllite and mica schist
(usually dark, fine-grained; contains pyrite, graphite, ottrelite, and occasional quartzite stringers; quartzite-conglomerate at base)

ms — Mica schist
(fine-grained uniform schist impregnated with pegmatite material; becomes siliceous in vicinity of Nantahala River)

nq — Nottely quartzite
(usually dense white quartzite with conglomeratic phases and beds of ottrelite schist; becomes less dense to the east and difficult to distinguish from adjoining ottrelite gneiss)

qms — Quartz-mica schist
(essentially schist with intermittent quartzite stringers; cleavage surfaces have typical "brassy" sheen)

qog — Quartz-ottrelite gneiss
(dark banded gneiss with local garnetic phases; schistose with fewer accessory minerals in vicinity of Culberson and Nantahala River)

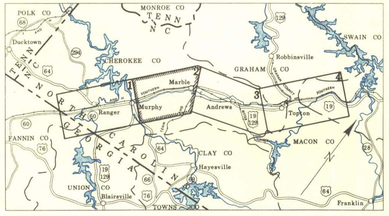
mm — Murphy marble
(white to dark blue, usually dolomitic marble with silicious phases and zones of amphibole, talc, phlogopite, and argillaceous laminae)

og — Ottrelite gneiss
(typically gneiss, with schistose phases and zones of feldspathic quartzite; chief source of limonite beds)

Talc mine 2
Talc prospect 25
Strike and dip of rocks ..... 45°
Strike and dip of foliation, with plunge of lineation (cleavage intersection) ..... 50°, 22°
Inclined fold axis ..... 8°
Horizontal fold axis

Note:
See text for facies changes along strike

INDEX TO SHEETS



GEOLOGIC MAP
TALC DEPOSITS OF MURPHY MARBLE BELT

NORTH CAROLINA DEPARTMENT OF CONSERVATION AND DEVELOPMENT
DIVISION OF MINERAL RESOURCES
IN COOPERATION WITH
TENNESSEE VALLEY AUTHORITY
COMMERCE DEPARTMENT - MINERALS SECTION

SCALE 1:24,000

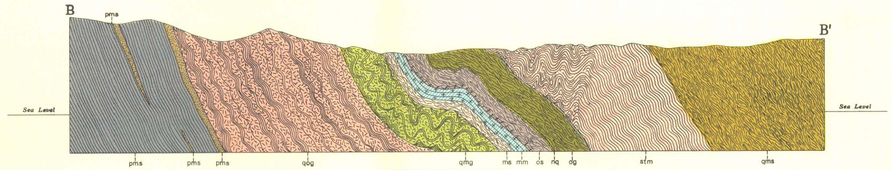
5,000 0 5,000 Feet
1 0 1 Mile

1947

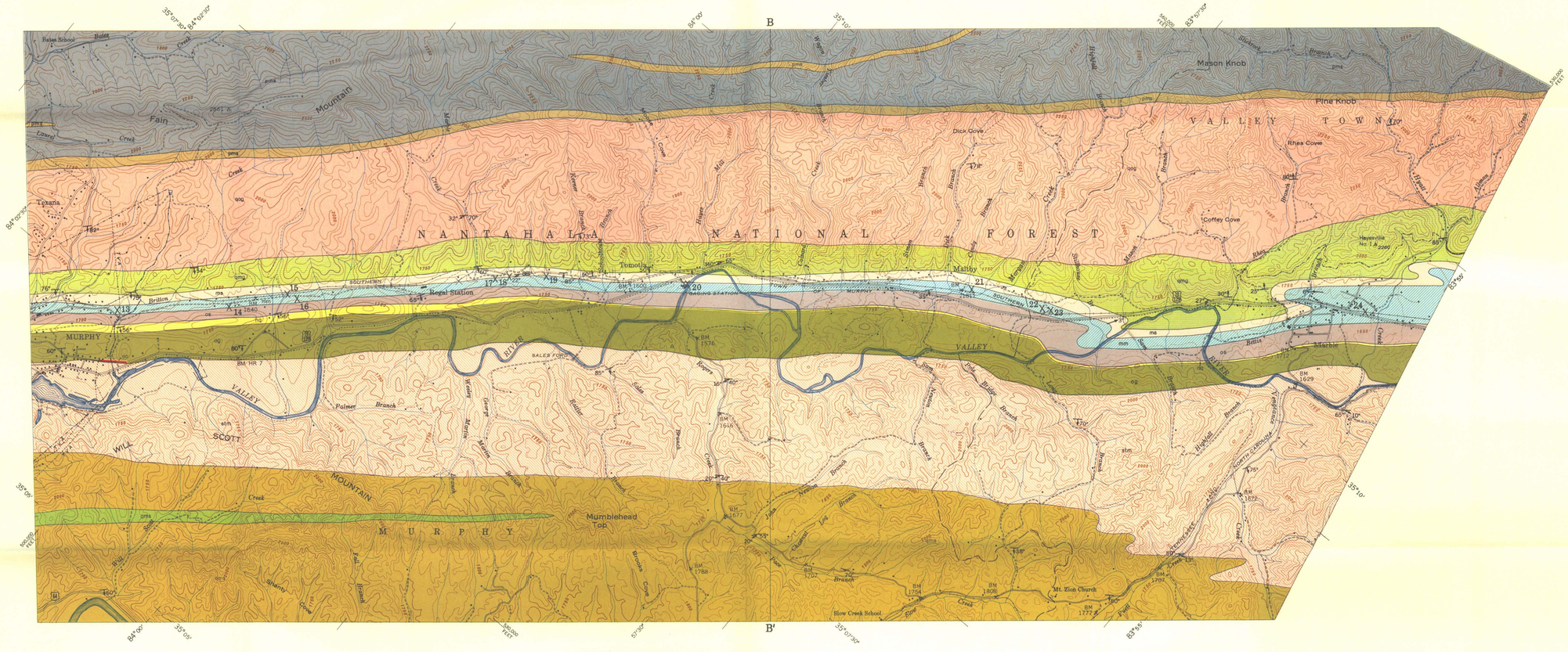
Cartography and Reproduction
TVA Maps and Surveys Division

SHEET 2 OF 4 SHEETS

5-CO-800K 501-2



SECTION ALONG LINE B-B'



LEGEND

- do — **Diorite** *(dark gray sills or dikes; best exposed near Murphy and Hewitt)*
- qmg — **Quartz-mica gneiss** *(essentially gneiss with beds of massive quartzite; arkosic at base; has distinctive flat-lying recumbent folds)*
- os — **Ottrelite schist** *(coarse brown mica schist with abundant ottrelite and minor but uniform amounts of pyrite; grades into formations on either side; limonite beds in residuum)*
- stm — **Staurolite-mica schist** *(light colored with thin beds of feldspathic quartzite; occasionally gneissic; chloritic and sericitic used of Murphy mica schist and quartz schist east of Andrews)*
- pms — **Phyllite and mica schist** *(usually dark, fine-grained; contains pyrite, graphite, ottrelite, and occasional quartzite stringers; quartzite-conglomerate at base)*
- ms — **Mica schist** *(fine-grained uniform schist impregnated with pegmatite material; becomes silicious in vicinity of Nantahala River)*
- nq — **Nottely quartzite** *(usually dense white quartzite with conglomeratic phases and beds of ottrelite schist; becomes less dense to the east and difficult to distinguish from adjoining ottrelite gneiss)*
- qms — **Quartz-mica schist** *(essentially schist with intermittent quartzite stringers; cleavage surfaces have typical "brassy" sheen)*
- qog — **Quartz-ottrelite gneiss** *(dark banded gneiss with local garnetic phases; schistose with fewer accessory minerals in vicinity of Culberson and Nantahala River)*
- mm — **Murphy marble** *(white to dark blue, usually dolomitic marble with silicious phases and zones of amphibole, talc, phlogopite, and argillaceous laminae)*
- qg — **Ottrelite gneiss** *(typically gneiss, with schistose phases and zones of feldspathic quartzite; chief source of limonite beds)*

Talc mine 2
Talc prospect 25
Strike and dip of rocks ..... 45°
Strike and dip of foliation, with plunge of lineation (cleavage intersection) ..... 50° 22°
Inclined fold axis ..... 8°
Horizontal fold axis

Note:
See text for facies changes along strike

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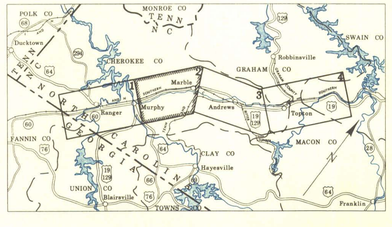

GEOLOGIC MAP
TALC DEPOSITS OF MURPHY MARBLE BELT

NORTH CAROLINA DEPARTMENT OF CONSERVATION AND DEVELOPMENT
DIVISION OF MINERAL RESOURCES
IN COOPERATION WITH
TENNESSEE VALLEY AUTHORITY
COMMERCE DEPARTMENT - MINERALS SECTION

SCALE 1:24,000

5,000 0 5,000 Feet

1 0 1 Mile

1947

SHEET 2 OF 4 SHEETS

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