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

June 12, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-2955, Mica, Elpha Mining Claim, Rio Arriba County, New Mexico

I concur in the field team's recommendation to deny subject application on the basis that the mica is not strategic quality.

/Signed/

W. F. Dietrich

DMEA-2955
Mica
-Region IV-

TENADA AND ARCHULETA, ESPANOLA, NEW MEXICO. Elpha Mining Claim No. 3, Rio Arriba County, New Mexico. 6-3-53
Field Report and Denial. The report was referred to the Commodity Group. No. 224

June 8, 1953

Memorandum

Docket No. DMEA-2955 - Mica
J. I. Archuleta and
D. G. Tejada
Elpha Mining Claim
Rio Arriba County, New Mexico

To: Mr. C. G. Mittendorf

From: Lawrence G. Houk

Subject: Concurrence of the denial on the subject application.

The Nonmetallic Minerals Division concurs with Region IV in the denial of this application because the mica is principally of the scrap quality and the possibility of discovering strategic mica is highly improbable.

LGHouk:gad 6/8/53

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

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

May 26, 1953.

C O P Y

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2955 (Mica), D. G. Tejada and J. I. Archuleta, Elpha Mining Claim, Rio Arriba County, New Mexico.

Enclosed are four copies of the final report on the subject docket, a copy of the letter of denial to the applicants, and two copies of Form 3b.

W. H. King

A. H. Koschmann

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
6-3-53
(date)

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

C O P Y

May 26, 1953.

224 New Customhouse
Denver 2, Colorado

Mr. D. G. Tejada
Box 384
Espanola, New Mexico

Mr. J. I. Archuleta
Box 125
Espanola, New Mexico

Re: Docket DMEA 2955

Gentlemen:

Reference is made to your application for Government aid on the Elpha Mining Claim #3.

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

A careful study of your property and data available to this agency reveals that the probability of disclosing mineable reserves of strategic mica by your proposed exploration program is not considered sufficiently promising to justify Government participation. Under these circumstances, we regret to advise that your application for exploration aid is denied.

Very truly yours,

W. H. King
Field Team, Region IV

HMC:cwm
cc: Administrator, DMEA
WRStorms
Raymond F. Robinson
AHKoschmann (2)
Subject
Chrom.

A. H. Koschmann
Field Team, Region IV

Reviewed by
DMEA OPERATING COMMITTEE
6-3-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

May 26, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2955 (Mica), D. G. Tejada and J. I. Archuleta, Elpha Mining Claim, Rio Arriba County, New Mexico.

Enclosed are nine copies of the final report on the subject docket.

The applicants requested $15,000.00 for exploration but planned to spend most of it on machinery and mining.

The examining engineer recommends that the application be denied because the mica is of scrap quality and a significant discovery of strategic mica is highly improbable.

We concur in this recommendation.

W. H. King

W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
6-3-53
(date)

MINING DIVISION
REGION IV

May 19, 1953

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Report for Docket DMA-2955, Alpha Mica Deposit, Petaca Mining District, Rio Arriba County, N. Mex.

Enclosed is a report on the above property by John A. Soule' of the Bureau of Mines. A separate report will not be submitted by the Geological Survey.

As there seems little chance of discovering any substantial amount of strategic mica on the Alpha Claim, the examiner recommends that the application for an exploratory loan be denied. I concur with this recommendation.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

cc: W. H. King (3)
R. F. Robinson
DMA-2955
JF

WRStorms:als

Reviewed by
DMEA APPRAISING COMMITTEE

6-3-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA-2955, Elona Mica Deposit

Petaca Mining District

Rio Arriba County, New Mex.

John H. Soule, Mining Engineer
U. S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
6-3-53
(date)

May 1953

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By John H. Soule 1/

The Alpha No. 3 mica deposits were located by J. I. Archuleta who owns the one unpatented claim in partnership with D. G. Tejada. Both parties reside in Espanola, N. Mex., and have applied to the Defense Minerals Exploration Administration for Government assistance to explore the deposits. The application, Docket DMEA-2955, was sent to the field for an examination of the property. This examination was made on May 12, 1953. The applicants estimated a total expenditure of $15,000.

Very little mica was produced from the deposits and all of this was of scrap quality although a little plate mica allegedly was mined. No mica has been produced from the deposits for many years as the mine workings show no evidence of work after 1940, and probably much earlier.

The mica deposits occur in a large pegmatite in pre-Cambrian schists and quartzites, although the mica concentrations are relatively small and irregular. No mica of strategic quality was noted, as well as no beryl, tantalite-columbite, nor monazite. The mica seen was black in color, heavily ruled, small in size, and some was stained.

No definite plan of exploration was submitted by the applicants. They estimated the cost of the project to be $15,000. Equipment and supplies were to be purchased with the funds.

1/ Mining Engineer, U. S. Bureau of Mines

Although it is known that strategic mica is of prime importance to the Nation's security, a significant discovery on the Alpha No. 3 claim is highly improbable. The deposits are not easily accessible, and the applicants are not experienced in mica mining.

It is recommended that the application for Government assistance, Docket DMEA-2955, be denied.

DMEA-2955, ALPHA MINE DEPOSIT
PETACA MINING DISTRICT
RIO ARRIBA COUNTY, N. MEX.

Engineering Report

By John M. Soule'
Mining Engineer
U. S. Bureau of Mines

May 1953

DMRA-4955, ALPINA MINA DEPOSIT
PETACA MINING DISTRICT
RIO ARRIBA COUNTY, N. MEX.

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INTRODUCTION

J. I. Archuleta and D. G. Tejada, locators of the Alpha No. 3 mica claim, applied to the Defense Minerals Exploration Administration for Government assistance to explore the deposits. The application, Docket DMEA-4955, was sent to the field for an examination of the property. This examination was made on May 12, 1953 by John H. Soule' of the U. S. Bureau of Mines and his results are incorporated in this report.

Although a thorough study of the district was made by the U. S. Geological Survey in the early 1940's, this pegmatite was not included in the study. It is probable that the past production was so insignificant that attention was not called to this deposit.

ACKNOWLEDGMENTS

Acknowledgment is due J. I. Archuleta and D. G. Tejada, locators of the claim, for meeting the examining engineer at the property. However, most of the examination was completed before the arrival of the owners.

LOCATION, TOPOGRAPHY AND PHYSICAL FEATURES

The Alpha No. 3 mica deposits are located in the center of the NW¼ SE¼ sec. 17, T. 25 N., R. 9 E., Petaca Mining District, Rio Arriba County, N. Mex., as shown in figure 1. They are reached by travelling toward Petaca, N. Mex. on State Highway 111 from La Madera, N. Mex. for nearly 3.3 miles, turning easterly or to the right towards Servilleta Plaza for 0.9 miles, thence right or southerly for 0.7 miles to the Tusas River. From this point, travel is down the river on foot

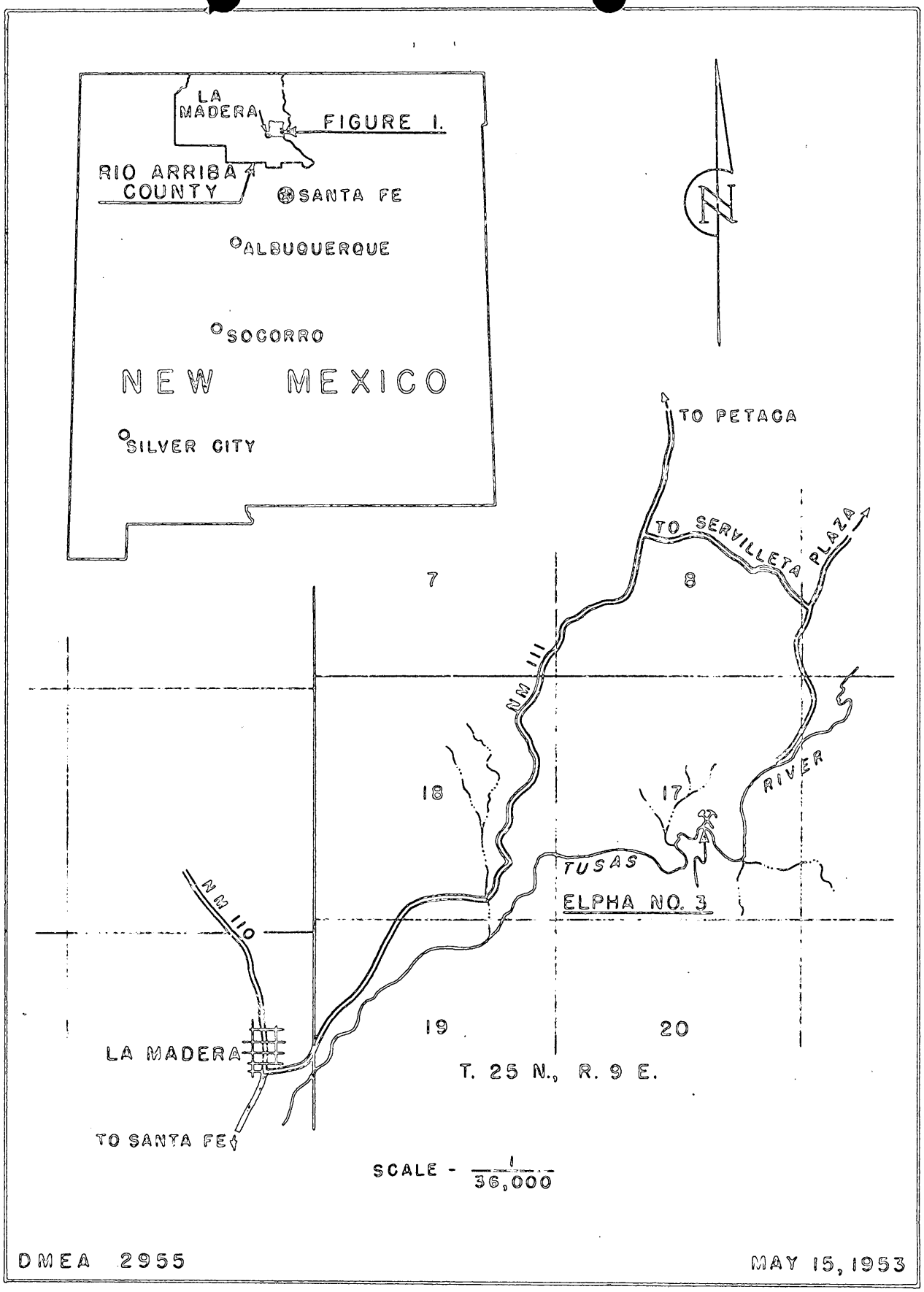

FIGURE 1. - LOCATION MAP, ELPHA NO. 3 MICA DEPOSITS
RIO ARRIBA COUNTY, NEW MEXICO

for 0.7 miles to the deposits, which are situated at the first sharp turn to the left made by the river. An old road with 2 crossings of the Tumas River once reached the claim but is now impassable. The deposits are easily seen on the steep canyon walls marking the river on the north. The route is shown on figure 1.

The terrain is rugged near the river, the hillsides becoming less steep as altitude is gained, ending in a small mesa a few hundred feet above the river. The deposits lie at an altitude of approximately 6,100 feet, the lower workings being about 100 feet below the upper on the opposite canyon wall.

Precipitation probably does not exceed 24 inches per year. This precipitation occurs as heavy summer thunder showers and winter snows which impede transportation away from the main travelled roads. There are a number of permanent streams, one of which, the Tumas River, courses through the Alpha No. 3 property. The proximity of the river to the Alpha No. 3 mica deposits probably would make unavailable any mica below the level of the river.

Summer temperatures are delightful. Much cold weather is usual in the winter. The large amount of sub-zero winter weather makes additional care necessary in the handling of equipment.

The area is heavily forested and timbering is one of the primary industries. Ponderosa pine abounds, as well as other smaller trees, and various shrubs, and grasses. Timber for mining uses is plentiful.

Living accommodations are primitive and limited in extent. Supplies and services are available in limited quantities.

OWNERSHIP AND EXTENT

The Alpha No. 3 mica deposits are covered by one unpatented mining claim, the Alpha No. 3. This claim was located on December 17, 1952. At the time of the examination there was no visible sign of any work having been done on the property since the location. The claim was located by J. I. Archuleta, who owns it in partnership with D. G. Tejada. Both men are residents of Espanola, N. Mex.

DESCRIPTION OF THE DEPOSITS

The Peteca district is one of the well known pegmatite areas in New Mexico. A pre-Cambrian series of quartz-mica schists and quartzites, with interlayers of amphibole schist, make up the country rock. Pre-Cambrian granite is exposed near Las Taolas in the northwest part of the district. Many pegmatites occur in the schist and allied rocks, and assume various attitudes in relation to the schistosity.

The Alpha No. 3 mica deposits occur in a pegmatite in the southeasternmost part of the district. The pegmatite is large, having a noted maximum width in excess of 50 feet, and a strike length several times that. It is exposed vertically for nearly 200 feet on the cliff walls cut by the Tusas River. The pegmatite strikes N. 75° E. and dips to the south about 65°. As near as could be determined, this pegmatite was more veinlike and regular than others observed in the district.

The pegmatite is composed largely of quartz and red microcline with minor cleavelandite. The noted mica concentrations occur along the north or footwall of the pegmatite. It may be that the concentrations

on the east canyon wall are along the keel of the pegmatite. This keel gives the impression of plunging to the west, and if so, continuation of the mica pods down the keel would soon place them beneath the level of the Tusas River where they probably could not be mined. The mica concentrations on the west canyon wall are well above the river and are well exposed.

The mica pods are irregular in shape and do not exceed several feet in any dimension. It is possible that the zone of concentrations may be continuous, but the individual concentrations occur sporadically within the zone. It is estimated that the concentrations contain about 20 percent mica.

The mica is black in color, is badly ruled, and often stained. The books average about 2 inches in diameter, although larger books were noted. No mica of strategic quality was noted, all of it was scrap grade. It is possible that a small amount of strategic mica would be encountered in mining operations.

No beryl or tantalite-columbite was noted in the pegmatite. They may exist in small amounts. Two crystals of monazite were found in a pegmatite about 1,500 feet to the north.

MINABLE ORE RESERVES

A few tons of scrap mica could be culled from the mine dumps and these reserves could be classified as measured. About 20 tons of scrap mica could be indicated in the exposures noted. Inferred reserves are indeterminate and may be large, but it is doubtful if the mica occurrence in small pods would support a mining operation. There are no reserves of mica of strategic quality and there are no known reserves of beryl, tantalite-columbite, nor monazite.

PRESENT STATUS

No work is being done on the Alpha No. 3 pegmatite at the present time. From the appearance of the old workings, none has been done for many years. Four old adits of shallow depth were noted. These are nearly caved shut so entry must be made through a small hole.

PROJECT PROPOSALS AND COSTS

The applicants for Government assistance in their proposal planned to spend $15,000 exploring the Alpha No. 3 mica deposits. It was gathered from the conversation with the applicants, that it was their impression the Government would, upon approval of the project, deposit or make available the Government's share of the expenses for the purchase of the desired equipment and supplies. It seems that the intention was to purchase equipment and supplies with the money and to start mining mica. No plan of attack was proposed and conversation with the applicants indicated their desire to start mining operations. Of course, it is possible that the best exploration of these very irregular deposits would be by development.

CONCLUSIONS

The following conclusions were derived from an examination of the Alpha No. 3 mica deposits:

1. The importance of critical strategic mica is well known. Little or no strategic mica occurs in the Alpha No. 3 deposits and all of the mica seen was of scrap quality.

2. There were enough exposures of the mica concentrations in the Alpha No. 3 pegmatite to state that a significant discovery of strategic mica is highly improbable. This also is indicated by the dismal past history of the district as a whole. The same remarks apply to any discovery of beryl, tantalite-columbite, or monazite.

3. Labor and equipment necessary for the proposed project is available.

4. The property is not easily accessible and about 1.5 miles of old road would have to be reconstructed and rehabilitated. This includes two crossings of the Tusas River which could hamper transportation during high water periods.

5. The applicants claim to have had experience in underground mining. Conversation with them discloses that they are not familiar with pegmatites and their mining problems.

RECOMMENDATIONS

Based largely on conclusion (2) and partly on conclusions (4) and (5), it must be recommended that the application for Government assistance to explore the Alpha No. 3 mica deposits, Docket [illegible], be denied.

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

June 12, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-2955, Mica, Elpha Mining Claim, Rio Arriba County, New Mexico

I concur in the field team's recommendation to deny subject application on the basis that the mica is not strategic quality.

W. F. Dietrich

W. F. Dietrich

FILE COPY
SURNAME:

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

600

June 8, 1953

Memorandum

Docket No. DMEA-2955 - Mica
J. I. Archuleta and
D. G. Tejada
Elpha Mining Claim
Rio Arriba County, New Mexico

To: Mr. C. O. Mittendorf

From: Lawrence G. Houk

Subject: Concurrence of the denial on the subject application.

The Nonmetallic Minerals Division concurs with Region IV in the denial of this application because the mica is principally of the scrap quality and the possibility of discovering strategic mica is highly improbable.

LGHouk:gad 6/8/53

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

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

June 8, 1953

Memorandum

Docket No. DMEA-2955 - Mica
J. I. Archuleta and
D. G. Tejada
Elpha Mining Claim
Rio Arriba County, New Mexico

To: Mr. C. O. Mittendorf

From: Lawrence G. Houk

Subject: Concurrence of the denial on the subject application.

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

224 New Customhouse
Denver 2, Colorado

May 26, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: ~~Final~~ Report, DMEA Docket 2955 (Mica), D. G. Tejada and J. I. Archuleta, Elpha Mining Claim, Rio Arriba County, New Mexico.

Enclosed are four copies of the final report on the subject docket, a copy of the letter of denial to the applicants, and two copies of Form 3b.

W. H. King

A. H. Koschmann

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE

6-3-53
(date)

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

224 New Customhouse
Denver 2, Colorado

May 26, 1953.

Mr. D. G. Tejada
Box 384
Espanola, New Mexico

Mr. J. I. Archuleta
Box 125
Espanola, New Mexico

Re: Docket DMEA 2955

Gentlemen:

Reference is made to your application for Government aid on the Elpha Mining Claim #3.

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

A careful study of your property and data available to this agency reveals that the probability of disclosing mineable reserves of strategic mica by your proposed exploration program is not considered sufficiently promising to justify Government participation. Under these circumstances, we regret to advise that your application for exploration aid is denied.

Very truly yours,

W. H. King
Field Team, Region IV

HMC:cwm

cc: Administrator, DMEA
WRStorms
Raymond F. Robinson
AHKoschmann (2)
Subject
Chron.

A. H. Koschmann
Field Team, Region IV

Reviewed by
DMEA OPERATING COMMITTEE

6-3-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

May 26, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2955 (Mica), D. G. Tejada and J. I. Archuleta, Alpha Mining Claim, Rio Arriba County, New Mexico.

Enclosed are nine copies of the final report on the subject docket.

The applicants requested $15,000.00 for exploration but planned to spend most of it on machinery and mining.

The examining engineer recommends that the application be denied because the mica is of scrap quality and a significant discovery of strategic mica is highly improbable.

We concur in this recommendation.

W. H. King

W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE

(date)

MINING DIVISION
REGION IV

May 19, 1953

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Report for Docket DMEA-2955, Elpha Mica Deposit, Petaca Mining District, Rio Arriba County, N. Mex.

Enclosed is a report on the above property by John H. Seule' of the Bureau of Mines. A separate report will not be submitted by the Geological Survey.

As there seems little chance of discovering any substantial amount of strategic mica on the Elpha Claim, the examiner recommends that the application for an exploratory loan be denied. I concur with this recommendation.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC: W. H. King (8)
R. F. Robinson
DMEA-2955
DF

WRStorms:als

Reviewed by
NEW OPERATING COMMITTEE

(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA-2955, Elpha Mica Deposit

Petaca Mining District

Rio Arriba County, N. Mex.

John H. Soule', Mining Engineer
U. S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE

May 1953

(date)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By John H. Soule[1]

The Elpha No. 3 mica deposits were located by J. I. Archuleta who owns the one unpatented claim in partnership with D. G. Tejada. Both parties reside in Espanola, N. Mex., and have applied to the Defense Minerals Exploration Administration for Government assistance to explore the deposits. The application, Docket DMEA-2955, was sent to the field for an examination of the property. This examination was made on May 12, 1953. The applicants estimated a total expenditure of $15,000.

Very little mica was produced from the deposits and all of this was of scrap quality although a little plate mica allegedly was mined. No mica has been produced from the deposits for many years as the mine workings show no evidence of work after 1940, and probably much earlier.

The mica deposits occur in a large pegmatite in pre-Cambrian schists and quartzites, although the mica concentrations are relatively small and irregular. No mica of strategic quality was noted, as well as no beryl, tantalite-columbite, nor monazite. The mica seen was black in color, heavily ruled, small in size, and some was stained.

No definite plan of exploration was submitted by the applicants. They estimated the cost of the project to be $15,000. Equipment and supplies were to be purchased with the funds.

1/ Mining Engineer, U. S. Bureau of Mines

Although it is known that strategic mica is of prime importance to the Nation's security, a significant discovery on the Elpha No. 3 claim is highly improbable. The deposits are not easily accessible, and the applicants are not experienced in mica mining.

It is recommended that the application for Government assistance, Docket DMEA-2955, be denied.

DMEA-2955, ELPHA MICA DEPOSIT
PETACA MINING DISTRICT
RIO ARRIBA COUNTY, N. MEX.

Engineering Report

By John H. Soule'
Mining Engineer
U. S. Bureau of Mines

May 1953

DMEA-2955, ELPHA MICA DEPOSIT
PETACA MINING DISTRICT
RIO ARRIBA COUNTY, N. MEX.

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INTRODUCTION

J. I. Archuleta and D. G. Tejada, locators of the Elpha No. 3 mica claim, applied to the Defense Minerals Exploration Administration for Government assistance to explore the deposits. The application, Docket DMEA-2955, was sent to the field for an examination of the property. This examination was made on May 12, 1953 by John H. Soule' of the U. S. Bureau of Mines and his results are incorporated in this report.

Although a thorough study of the district was made by the U. S. Geological Survey in the early 1940's, this pegmatite was not included in the study. It is probable that the past production was so insignificant that attention was not called to this deposit.

ACKNOWLEDGMENTS

Acknowledgment is due J. I. Archuleta and D. G. Tejada, locators of the claim, for meeting the examining engineer at the property. However, most of the examination was completed before the arrival of the owners.

LOCATION, TOPOGRAPHY AND PHYSICAL FEATURES

The Elpha No. 3 mica deposits are located in the center of the NW¼ SE¼ sec. 17, T. 25 N., R. 9 E., Petaca Mining District, Rio Arriba County, N. Mex., as shown in figure 1. They are reached by travelling toward Petaca, N. Mex. on State Highway 111 from La Madera, N. Mex. for nearly 3.3 miles, turning easterly or to the right towards Servilleta Plaza for 0.9 miles, thence right or southerly for 0.7 miles to the Tusas River. From this point, travel is down the river on foot

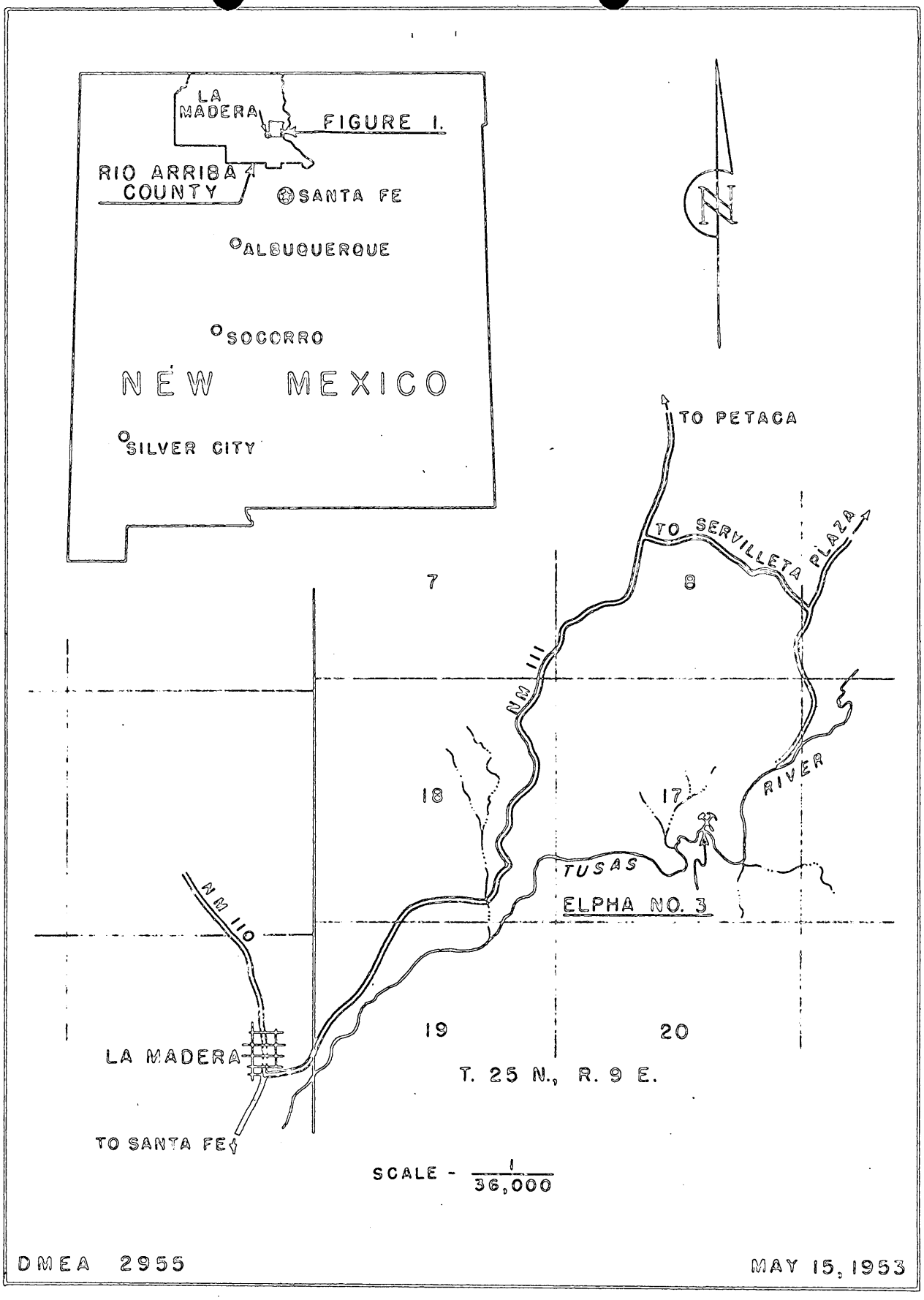

FIGURE 1. - LOCATION MAP, ELPHA NO. 3 MICA DEPOSITS
RIO ARRIBA COUNTY, NEW MEXICO

for 0.7 miles to the deposits, which are situated at the first sharp turn to the left made by the river. An old road with 2 crossings of the Tusas River once reached the claim but is now impassable. The deposits are easily seen on the steep canyon walls banking the river on the north. The route is shown on figure 1.

The terrain is rugged near the river, the hillsides becoming less steep as altitude is gained, ending in a small mesa a few hundred feet above the river. The deposits lie at an altitude of approximately 6,600 feet, the lower workings being about 100 feet below the upper on the opposite canyon wall.

Precipitation probably does not exceed 24 inches per year. This precipitation occurs as heavy summer thunder showers and winter snows which impede transportation away from the main travelled roads. There are a number of permanent streams, one of which, the Tusas River, courses through the Elpha No. 3 property. The proximity of the river to the Elpha No. 3 mica deposits probably would make unavailable any mica below the level of the river.

Summer temperatures are delightful. Much cold weather is usual in the winter. The large amount of sub-zero winter weather makes additional care necessary in the handling of equipment.

The area is heavily forested and timbering is one of the primary industries. Ponderosa pine abounds, as well as other smaller trees, and various shrubs, and grasses. Timber for mining uses is plentiful.

Living accommodations are primitive and limited in extent. Supplies and services are available in limited quantities.

OWNERSHIP AND EXTENT

The Elpha No. 3 mica deposits are covered by one unpatented mining claim, the Elpha No. 3. This claim was located on December 17, 1952. At the time of the examination there was no visible sign of any work having been done on the property since the location. The claim was located by J. I. Archuleta, who owns it in partnership with D. G. Tejada. Both men are residents of Espanola, N. Mex.

DESCRIPTION OF THE DEPOSITS

The Petaca district is one of the well known pegmatite areas in New Mexico. A pre-Cambrian series of quartz-mica schists and quartzites, with interlayers of amphibole schist, make up the country rock. Pre-Cambrian granite is exposed near Las Tablas in the northwest part of the district. Many pegmatites occur in the schist and allied rocks, and assume various attitudes in relation to the schistosity.

The Elpha No. 3 mica deposits occur in a pegmatite in the southeasternmost part of the district. The pegmatite is large, having a noted maximum width in excess of 50 feet, and a strike length several times that. It is exposed vertically for nearly 200 feet on the cliff walls cut by the Tusas River. The pegmatite strikes N. 78° E. and dips to the south about 65°. As near as could be determined, this pegmatite was more veinlike and regular than others observed in the district.

The pegmatite is composed largely of quartz and red microcline with minor cleavelandite. The noted mica concentrations occur along the north or footwall of the pegmatite. It may be that the concentrations

on the east canyon wall are along the keel of the pegmatite. This keel gives the impression of plunging to the west, and if so, continuation of the mica pods down the keel would soon place them beneath the level of the Tusas River where they probably could not be mined. The mica concentrations on the west canyon wall are well above the river and are well exposed.

The mica pods are irregular in shape and do not exceed several feet in any dimension. It is possible that the zone of concentrations may be continuous, but the individual concentrations occur sporadically within the zone. It is estimated that the concentrations contain about 20 percent mica.

The mica is black in color, is badly ruled, and often stained. The books average about 2 inches in diameter, although larger books were noted. No mica of strategic quality was noted, all of it was scrap grade. It is possible that a small amount of strategic mica would be encountered in mining operations.

No beryl or tantalite-columbite was noted in the pegmatite. They may exist in small amounts. Two crystals of monazite were found in a pegmatite about 1,500 feet to the north.

MINABLE ORE RESERVES

A few tons of scrap mica could be culled from the mine dumps and these reserves could be classified as measured. About 20 tons of scrap mica could be indicated in the exposures noted. Inferred reserves are indeterminate and may be large, but it is doubtful if the mica occurrence in small pods would support a mining operation. There are no reserves of mica of strategic quality and there are no known reserves of beryl, tantalite-columbite, nor monazite.

PRESENT STATUS

No work is being done on the Elpha No. 3 pegmatite at the present time. From the appearance of the old workings, none has been done for many years. Four old adits of shallow depth were noted. These are nearly caved shut so entry must be made through a small hole.

PROJECT PROPOSALS AND COSTS

The applicants for Government asistance in their proposal planned to spend $15,000 exploring the Elpha No. 3 mica deposits. It was gathered from the conversation with the applicants, that it was their impression the Government would, upon approval of the project, deposit or make available the Government's share of the expenses for the purchase of the desired equipment and supplies. It seems that the intention was to purchase equipment and supplies with the money and to start mining mica. No plan of attack was proposed and conversation with the applicants indicated their desire to start mining operations. Of course, it is possible that the best exploration of these very irregular deposits would be by development.

CONCLUSIONS

The following conclusions were derived from an examination of the Elpha No. 3 mica deposits:

1. The importance of critical strategic mica is well known. Little or no strategic mica occurs in the Elpha No. 3 deposits and all of the mica seen was of scrap quality.

2. There were enough exposures of the mica concentrations in the Elpha No. 3 pegmatite to state that a significant discovery of strategic mica is highly improbable. This also is indicated by the dismal past history of the district as a whole. The same remarks apply to any discovery of beryl, tantalite-columbite, or monazite.

3. Labor and equipment necessary for the proposed project is available.

4. The property is not easily accessible and about 1.5 miles of old road would have to be reconstructed and rehabilitated. This includes two crossings of the Tusas River which could hamper transportation during high water periods.

5. The applicants claim to have had experience in underground mining. Conversation with them discloses that they are not familiar with pegmatites and their mining problems.

RECOMMENDATIONS

Based largely on conclusion (2) and partly on conclusions (4) and (5), it must be recommended that the application for Government assistance to explore the Elpha No. 3 mica deposits, Docket DMEA-2955, be denied.

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

224 New Customhouse
Denver 2, Colorado

April 3, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 6 1953

Messrs.
D. G. Tejada-Box 384
Espanola, New Mexico
and
J. I. Archuleta-Box 125
Espanola, New Mexico

Re: DMEA Docket No. 2955

Gentlemen:

Your application on the Elfa Mining Claim No. 3 has been forwarded to this office from Washington.

Before we can continue to process your application, it will be necessary that you furnish the following information:

(1) A description of your proposed work.

(2) The total time required to complete the proposed work.

(3) The total estimated cost of your proposed work.

(4) A map or sketch showing the relation of your proposed work to the property lines of the Elfa Mining Claim No. 3.

When we receive this information, we will be glad to continue to process your application.

Very truly yours,

W. H. King

W. H. King
Executive Officer
DMEA Field Team
Region IV

HMC:es

cc: Mittendorf
Subject
Chron.

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

March 30, 1953

Mr. D. G. Tejada
Box 384
Espanola, New Mexico

Subject: DMEA-2955
Re: Exploration Assistance
Elfa Mining Claim No. 3

My dear Mr. Tejada:

The receipt of your application dated March 23, 1953 for exploration assistance under the Defense Production Act of 1950 as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2955 and referred to:

Mr. W. H. King
Executive Officer
DMEA Field Team
224 New Customhouse Building
Denver 2, Colorado

Kindly refer to DMEA-2955 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams, Chief
Operations Control and
Statistics Division

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 27 1953

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

Not to be filled in by applicant

Docket No. 2955
Metal or Mineral
Date Received 3-27-53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: The co-partnership of:
D. G. Tejada - Box 384 - Espanola, New Mexico
J. I. Archuleta - Box 125 - Espanola, New Mexico

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Do not possess a suitable legal description of said land at the present time - See 3 (f). as also copy of Notice of Lode mining Location attached herein and made a part of this application.

(*b*) State any mine name by which the property is known. Elfa Mining Claim No. 3

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise I have a fifty per cent interest with my co-partner - this is a staked claim.

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

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

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Vol. 14, Page 97, Records of Rio Arriba County, where it was filed (Notice of Lode Mining Location) on the 26th day of December 1952.

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

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. For answers to questions from 4 on see attached schedule

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Personal checking account

[S] Money [ ] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated March 23, 1953, 195...

Domingo G. Tejada
(Applicant)

By .....

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

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

[illegible] TO [illegible] IN FORM [illegible]-103. [illegible] OF 1950, [illegible].

4 (a). Annual assessments required by state law have been performed. Accessibility is fair; not too far from the highway, and only about one and one-half miles from the forest road.

4 (b) Unknown.

4 (c) No maps or sketches available at the present time showing the geologic features of the land. The type of deposit is as follows: Crush rock bed mica; lies in pockets, and it is of a hard nature necessitating drilling and blasting.

4 (d) The proposed project is three miles from the mica mill known as the "Mary Mill." There are other mica mines in the vicinity. Many has been working most of these mines. Other marketing places are available in Albuquerque, New Mexico, and Denver, Colo.

Proposed project is about six miles from Highway No._____ which is paved, four miles from the town of Petaca, N.M., about forty-five miles due north of Santa Fe through U.S. Highway No. 285, and about thirty one miles north of Espanola, New Mexico.

4 (e) Water in this area is plentiful, however there is no water for power. There is, however, a power line about one mile from the proposed project. As far as supplies and equipment is concerned, they will have to be required from Denver, Colo., or Albuquerque, N.M.

5 (a) I wish to explore for mica.

5 (b) No map or sketch of the property of the proposed work available at the present time.

5 (c) Work will start within thirty days and be completed at an undefinite time on said proposed project.

5 (d) Operating experience and background etc. of applicant as follows: Three years underground mining experience - later foreman in different projects; blacksmith different projects; vocational training on a professional and crafts by self capable of supervising project. Co-partner also possesses about the same type experience.

6 (b) I intend to use a five man crew including myself. I will act as superintendent and expediter at an estimated cost of $100.00 per day. I plan to pay my laborers the regular organized labor wages.

6 (c) Powder, about $5.00 per week; fuel, for trucks and compressors, about $30.00 a week; grease, about $5.00 a week; and wages, about $600.00 per week. Payroll and sales tax unknown at this time.

6 (d) Air compressor about $3,000.00; Dump truck, about $3,000.00; pipe, about $500.00; and two jack hammers, about $900.00. I plan to buy my operating equipment outright if possible because it is cheaper than to rent them.

6 (e) No existing improvements.

6 (a). No buildings will be build in the near future except a tool shed and and office which will probably be built at an expense of not more than $300.00.

6 (b). About two days work will be needed to build the road to the proposed project and the cost for the equipment and driver will probably amount to about $120.00. Now, as far as the accounting, workmen's compensation and employers' liability insurance and payroll taxes are concerned, it is hard to estimate just what the cost will be. It is well to state, however, that it will only be a four to five man project.

6 (h) I believe that a reasonable allowance for organization not included in the cost should be around $300.00.

Domingo T. Tejada

NOTE: If this application is not accepted at this time, then all the work which I will perform on said project will be the annual assessment required by state law.