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

COPY

PROPERTY OF THE INTERIOR
Defense Minerals Administration
APR - 8 1954

224 New Customhouse
Denver 2, Colorado

March 19, 1954.

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Report of Examination - DMEA Docket 3170 (Asbestos), Vernon H. Kennedy, Mountain of Mystery Claims, Pinal County, Arizona.

Enclosed are the original and three copies of the report pertaining to the above application.

The applicant requested $31,850.00 to explore at depth the extension of surface exposures of chrysotile.

We concur that exploration on this property is not warranted and we recommend that the application be denied.

/s/ W. H. King

/s/ E. N. Harshman for
A. H. Koschmann

Enclosures

DMEA REPORTS
~~Mr. Booth~~
.....
.....
Chief, Minerals Division
Calvin Pierson
Mt. Weather
For your information and review
Calvin Pierson

Reviewed by
DMEA OPERATING COMMITTEE

(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

March 19, 1954.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Report of Examination - Docket No. DMEA-3170 (Asbestos), Vernon H. Kennedy, Mountain of Mystery claims, Pinal County, Arizona.

Enclosed are nine copies of the engineering report of examination on the subject docket.

The applicant requested a total of $31,850.00 to explore at depth the extension of minor surface exposures of chrysotile.

The engineer examiner concludes that because of the thin limestone beds, weak serpentinization, non-strategic fiber, and a total fiber content of plus one inch within three widely spaced zones additional exploration is not warranted.

We concur in the recommendation that the application be denied.

W. H. King

W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE

_____
(date)

March 8, 1954

Memorandum

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

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

Subject : Report on Docket DMEA-X170, Kennedy's Mountain of Mystery Asbestos Mine, Pinto Creek Mining District, Pinal County, Ariz.

Enclosed are original and 8 copies of the section on Summary, Conclusions and Recommendations by Fred N. Houser of the Geological Survey and R. W. Agsten of the Bureau of Mines, and the section on Engineering by Agsten for the above report. A separate section on Geology will be submitted by the Geological Survey.

Because of unfavorable thin limestone beds, weak serpentinization, non-strategic fiber, and the possible limited size of the deposit, the examiners have recommended that the loan be denied. I concur with their recommendation.

Lincoln A. Stewart of the Bureau of Mines has examined this deposit under the Bureau's asbestos program, has read Agsten's report, and also approves it.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC W. H. King (8)
A. F. Shride
DMEA-X170
BF

WRStorms:frj

Reviewed by
DMEA OPERATING COMMITTEE

(date)

March 11 1954

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : Lincoln A. Stewart, Mining Engineer, Tucson, Ariz.

Subject : Report on Docket DMEA-3170, Kennedy's Mountain of Mystery Asbestos Mine, Pinal County, Ariz.

The report on the above property by Robert W. Ageton of the Bureau of Mines has been read by me. I have examined this mine under Bureau of Mines Program 906.1 - Asbestos Investigations, and concur with Ageton's conclusions and recommendations.

Lincoln A. Stewart

Lincoln A. Stewart, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

CC W. H. King (Orig. & 8)
DMEA-3170
MF

Reviewed by
DMEA OPERATING COMMITTEE

_____
(date)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver 2, Colorado

February 23, 1954

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 3170, Mountain of Mystery Claims (asbestos), Pinal County, Arizona

Enclosed are 9 copies of a geologic report by F. N. Houser of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be denied.

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (9)

Reviewed by
DMEA OPERATING COMMITTEE

(date)

COPY FKH

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 4126, University Station
Tucson 5, Arizona

February 19, 1954

Memorandum

To: A. H. Koschmann

From: F. N. Houser, Tucson, Arizona

Subject: Examination Report, DMEA 3179, Mountain of Mystery Claims (asbestos), Pinal County, Arizona

Enclosed are the original and 8 copies of a memorandum on the subject application. It is recommended that an exploration loan be denied because only insignificant quantities of poor quality asbestos are to be expected. I understand that the Bureau's report, which will include the map referred to herein, will be transmitted in about a week.

/s/ Fred

F. N. Houser
Geologist

Reviewed by
DMEA 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-3170, Kennedy's Mountain of Mystery Asbestos Mine

Pinto Creek Mining District, Pinal County, Arizona

F. N. Houser, Geologist
U. S. Geological Survey

Robert W. Ageton, Mining Engineer
U. S. Bureau of Mines

March 1954

Reviewed by
DMEA OPERATING COMMITTEE

_____
(date)

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By Fred N. Houser[1] and Robert W. Ageton[2]

On October 20,1953, the Executive Officer of the Defense Minerals Exploration Administration, Region IV, requested that an examination and report be made of the Mountain of Mystery claim group, situated in the Pinto Creek Mining District, Pinal County, about 10 miles westerly from Miami, Ariz. Vernon H. Kennedy, Box 1748, Miami, Ariz., owner of the claims, applied for Government assistance to explore for depth extension of surface exposures of chrysotile. The application was assigned Docket No. DMEA-3178 (asbestos). The total cost of the proposed work was estimated to be $31,850.00.

On February 5, 1954, Lincoln A. Stewart and R. W. Ageton, mining engineer, Bureau of Mines, and Fred N. Houser, geologist, Geological Survey, visited the property and mapped the surface exposures.

Exploration performed by the applicant has exposed 2 contiguous areas of asbestos mineralization differing about 50 feet in elevation. A short adit and surface cuts in the upper deposit expose a total of minus 1 inch of non-strategic fiber within widely spaced zones in weakly serpentinized, thin limestone beds. The lower deposit has not been as badly faulted and is geologically more favorable as the situs for an exploration program. However, the lack of strategic quality fiber and the apparent quantitative limitations also preclude consideration of this lower area for further exploration. Additional work at this property would not result in the discovery of a significant deposit of asbestos. Therefore, it is recommended that the application for Government assistance be denied.

1/ Geologist, U. S. Geological Survey
2/ Mining Engineer, U. S. Bureau of Mines

MOUNTAIN OF MYSTERY CLAIMS

ASBESTOS

DMEA 3170

PINAL COUNTY, ARIZONA

Geologic

by
F. N. Houser, Geologist
U.S. Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE

_____
(date)

MOUNTAIN OF MYSTERY CLAIMS

ASBESTOS

DMEA 3170

PINAL COUNTY, ARIZONA

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ILLUSTRATIONS

Figure 2 PLAN AND SECTION OF THE DEPOSIT OF THE MOUNTAIN OF MYSTERY CLAIM NO. 2 See Engineering Report

INTRODUCTION

The Mountain of Mystery Nos. 1, 2, 3 and 4 claims (unpatented) Kennedy Mines, located approximately in sec. 14, T. 1 N., R. 12 E., Pinal County, about 17 airmiles west of Globe, Arizona, comprise the subject of a proposed exploration program to cost $31,850. The writer, in company with L. A. Stewart and R. W. Ageton of the Bureau of Mines, examined this property on February 5.

Geology and asbestos deposits

The asbestos occurs as thin, non-persistent, cross-fiber veinlets in three zones of very weakly to moderately serpentinized limestone of the lower member of the pre-Cambrian Mescal limestone. These zones parallel the bedding of the limestone. The structural relationships of the occurrence are shown in the map and cross-section accompanying the Bureau of Mines report by Ageton. Local faulting, somewhat generalized on this map, has complicated and will complicate any further exploration of the deposit by the owner.

The property is situated in a region of complex geologic history where intricate faulting and diabase intrusion have resulted in cutting the sedimentary terrane into tilted and disoriented blocks of greatly differing sizes. The asbestos examined is in what appear to be two such blocks (referred to subsequently as the north and south blocks) of lower Mescal limestone surrounded by diabase. Apparent igneous discordancies are noted on the map; all other observed contacts were concordant. Although the exact relationships of the diabase and the Mescal are not observable everywhere, the diabase is thought to separate the blocks in the vicinity of the west-trending gully where it is

inferred to be discordant with the north block. Experience in the Arizona asbestos deposits elsewhere has indicated that such discordancies are in many places favorable loci for asbestos in adjoining limestone; however, no increase nor concentration of asbestos or serpentine was observed toward any of the discordancies at this locality. One explanation might be that the discordancies are fault contacts rather than igneous contacts.

Past experience has also shown generally massive limestone beds and generous serpentization of the limestone to be favorable factors in the occurrence of asbestos. The three zones of this deposit are in an 8-10 foot interval of thin-bedded limestone except in the adit where the limestone is medium-bedded and along the southwest slope of the north block where for short distances it is medium- to thick-bedded. Serpentinization of the limestone has not been intensive nor extensive; only in the adit and in places on the bench face of the north block does it approach the quantity commonly observed in modest deposits of the Sierra Ancha and Salt River areas to the north.

Of the three zones, the middle was found to be the most persistently fiber bearing. It contained about ½" of fiber, in partings from 1/8" to 1/4", locally up to 3/8", in exposures in the adit and along the bench faces of both blocks. The apparent limits of the fiber in this zone are shown in the adit where it thins rapidly toward the east (into the adit). Along the bench face of the north block the fiber is cut by a fault on the east and thins about 25' short of the west end of the bench face.

Traces to 1/8" fiber were noted in the upper zone (3-4 feet above middle zone) of the north block and along the bench face of the south block. The lower zone (4-5 feet below middle zone) was exposed only in the adit on the south block where it contained a trace of fiber, and at one place in the north block where it contained up to 1/4" of fiber. Both zones are very weakly mineralized and the fiber is sporadic in distribution.

The quality of the fiber observed in all zones is semi-harsh to harsh and of low tensile strength. Some fiber in the adit and at one or two places elsewhere along the exposed cuts is somewhat softer but fiber of such quality is apparently very uncommon.

RECOMMENDATION

It is recommended that Government participation in the proposed exploration program be denied because (1) of the poor quality of the asbestos fiber and (2) because of the small quantity of asbestos to be anticipated on the grounds of geologically unfavorable country rock as judged by the general thin-bedded limestone, the paucity of serpentine, and the apparent low degree of mineralization adjacent to the diabase.

DMEA-3170, KENNEDY'S MOUNTAIN OF MYSTERY ASBESTOS MINE
PINTO CREEK MINING DISTRICT, PINAL COUNTY, ARIZONA

Engineering Report

By Robert W. Ageton
Mining Engineer
U. S. Bureau of Mines

March 1954

DMEA-3170, KENNEDY'S MOUNTAIN OF MYSTERY ASBESTOS MINE
PINTO CREEK MINING DISTRICT, PINAL COUNTY, ARIZONA

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Engineering report — Page

Introduction — 1
Acknowledgment — 1
Location, topography and physical features — 2
History and production — 3
Ownership and extent — 3
Description of deposits — 3
Conclusions — 6
Recommendations — 6

ILLUSTRATIONS

Figure — Following page

1 Location map — 2
2 Plan and section of the deposit on the Mountain of Mystery Claim No. 2 — 3

INTRODUCTION

On October 20, 1953, the Executive Officer of the Defense Minerals Exploration Administration, Region IV, requested that an examination and report be made on the feasibility of Government participation in an exploration project on the Mountain of Mystery group of claims, situated in the Pinto Creek Mining District about 10 miles westerly from Miami, Gila County, Ariz. Vernon H. Kennedy, Box 1748, Miami, Ariz., owner of the claims, was the applicant. Exploration was proposed to determine depth extension of surface exposures of chrysotile. The total cost of the proposed work was estimated to be $31,850.00. The application was assigned Docket No. DMEA-X170 (asbestos).

On February 5, 1953, R. W. Agoten, mining engineer, Bureau of Mines, and Fred N. Houser, geologist, Geological Survey, visited the property in the company of Vernon H. Kennedy the owner-applicant. The surface exposures and the short adit were examined and mapped.

ACKNOWLEDGMENTS

Acknowledgment is due Vernon H. Kennedy, the owner-applicant. Kennedy accompanied the DMEA field examiners to the mine and gave them information regarding the project proposal. Data supplied by Kennedy was of value in drawing conclusions as to the merits of the project. Acknowledgment also is due Lincoln A. Stewart of the Bureau of Mines, who mapped this deposit at the same time that it was visited by the DMEA examiners.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Mountain of Mystery claims are situated in the Pinto Creek Mining District, Pinal County, Ariz., about 10 miles westerly from Miami, Ariz. To be more precise, the claims lie approximately in unsurveyed sec. 13, T. 1 N., R. 12 E.

The property is reached by proceeding southwesterly from Miami, Ariz., for 3.5 miles along U. S. Highway 60 - 70 to the junction with the road to the Castle Dome Open Pit mine. The abandoned pit is a prominent landmark easily recognized from the highway. Follow the Castle Dome road for 2.3 miles, then observe well-marked signs to the Kennedy ranch, which is a total of 14.5 miles from U. S. Highway 60-70. The Mountain of Mystery group of claims lies southwestern from the ranch and is accessible by a pioneer road 1.5 miles long. This road is passable only with compound-geared trucks or 4-wheel drive vehicles.

The Mountain of Mystery deposit outcrops along the western slope of a prominent hill southwesterly from the Kennedy ranch. Mine workings are at an altitude of about 3,775 feet above sea level as estimated with an aneroid barometer. The climate is ideal for mining purposes during both the winter and the summer months. An adequate water supply could be obtained for a limited exploration program, and Arizona cypress trees could be utilized for lagging, light timbering, and track ties.

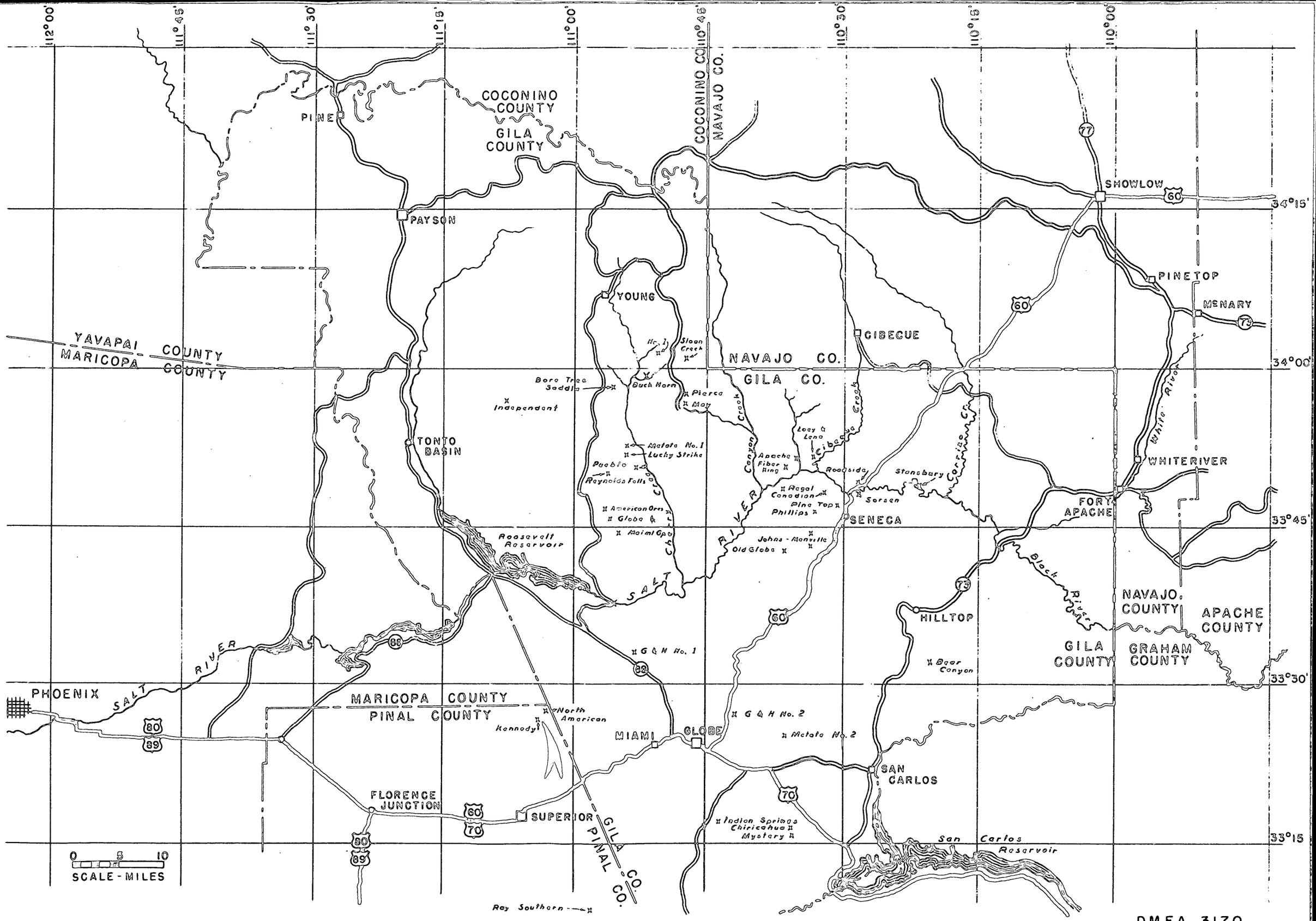

FIGURE 1. - LOCATION MAP - ASBESTOS DEPOSITS - CENTRAL ARIZONA

HISTORY AND PRODUCTION

Asbestos outcrops in the Pinto Creek Mining District were known as early as 1903. The first asbestos claims were located 4 miles northwest of Herrell's ranch, about 9 miles northwest of Miami, Gila County, Ariz. Herrell's Ranch is approximately 5.0 miles northeasterly from the applicant's Mountain of Mystery group of claims.

From data supplied by the applicant, some asbestos fiber was mined for test milling. Settlement sheets submitted for examination indicated that purchases were contingent pending yield results. Final settlement sheets were not offered for inspection. So far as is known the total fiber mined and submitted for test milling is as follows:

Grade	Pounds
No. 2	1,183
No. 3	465

OWNERSHIP AND EXTENT

The Mountain of Mystery group of unpatented lode mining claims is owned by Vernon H. Kennedy, Box 1748, Miami, Ariz. These claims are recorded in the Pinal County Recorder's Office, Florence, Ariz., as follows:

	Docket	Page
Mountain of Mystery No. 1	74	357
Mountain of Mystery No. 2	74	358
Mountain of Mystery No. 3	74	359
Mountain of Mystery No. 4	74	360

DESCRIPTION OF GEOLOGY

At the Mountain of Mystery deposit, chrysotile occurs in 3 zones in Pre-Cambrian Mescal limestone that is overlain and underlain by concordant diabase sills (figure 2). Considerable post-mineral faulting

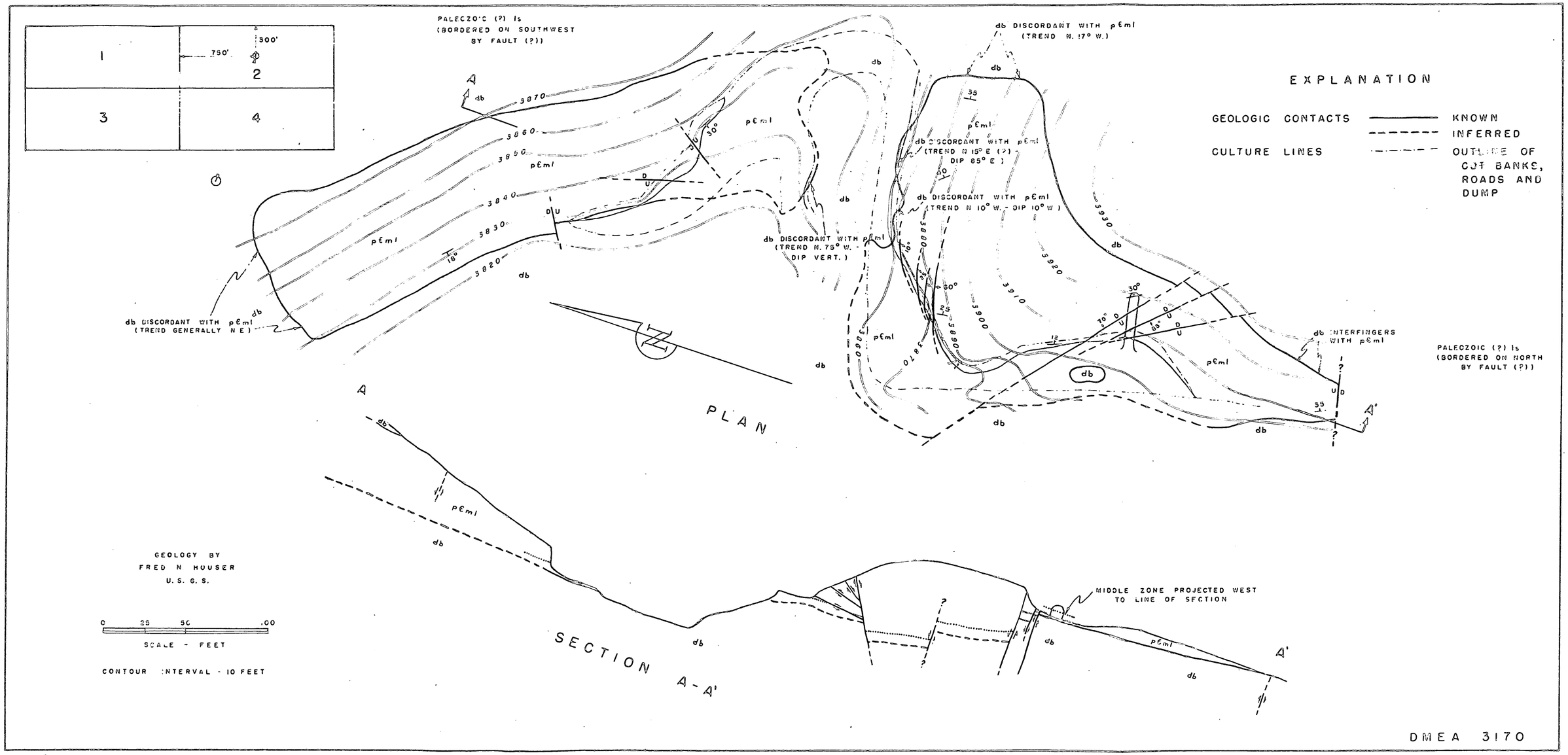

FIGURE 2. - PLAN AND SECTION OF THE MOUNTAIN OF MYSTERY CLAIM NO. 2

PINTO CREEK MINING DISTRICT PINAL COUNTY, ARIZONA

has complicated the structure of this deposit, resulting in a general downfaulting pattern that starts from the adit exposed near the southern limit of the deposit and extends about 350 feet towards the northern boundary. A combination of post-mineral faulting, together with diabase intrusion has placed the northern section of the ore deposit approximately 50 feet below the southern half. In order to facilitate the discussion of fiber exposures, reference will be made to the 2 sections of the deposit, the North Block and the South Block.

Prior to the DMRA field examination, an exploration cut was made on the North Block exposing approximately 100 feet of the ore horizon. Three fiber zones were exposed in weakly serpentinized limestone. They are as follows:

Upper Zone: Trace.
3.0 ft. interval.
Middle Zone: 1/4" to 1" semi-soft fiber (many partings).
3.0 ft. interval.
Lower Zone: Trace to 1/2" semi-harsh fiber.

Limestone beds in the North Block range from 1½ to 4½ feet thick and are suggestive of limestone beds that have been favorable loci for asbestos mineralization in Gila County. However, diabase is discordant at each end of the North Block and it is possible that the deposit is limited in depth by contact with a discordant diabase sill. Lack of quality fiber and possible depth limitations indicate that further exploration is not justified in this location.

The South Block (approximately 50 feet in elevation above the North Block) was explored by an open cut 300 feet long, and by a 36-foot inclined adit. Two fiber bands were exposed in this area and average as follows:

(?) Upper Zone: 1/16" to 1/8" harsh fiber (weathered).
4 - 5 ft. interval.
(?) Middle Zone: 3/8" to 3/4" semi-harsh fiber (Many partings).
5.0 ft. interval.
Lower Zone: Not exposed.

Limestone beds in this southern section of the deposit are thin (up to 1 feet thick) and are similar to thin bedded, weakly serpentinized limestone deposits of Gila County that have proven to be unfavorable ore hosts. In addition to the factors of poor quality fiber and small total fiber content of the South Block, is the possibility that the deposit is limited in depth by contact with a discordant diabase sill.

Examination of the adit in the South Block disclosed 3 steeply dipping faults, trending northwesterly. Each fault has offset the beds from 1 to 2 feet with the downthrow on the northeast side. These post-mineral faults have complicated the structure and offset the limestone beds to such an extent that it would not be feasible to mine asbestos fiber in this section of the deposit. Fiber exposures noted in the adit are as follows:

Portal to Sta. 0 + 00:		Upper Zone: Not exposed. Middle Zone: Not exposed Lower Zone: Trace.
0 + 00 to	0 + 25:	Upper Zone: Not exposed. Middle Zone: 3/4" to 1" semi-harsh fiber (partings up to 3/8"). Lower Zone: Not exposed.
0 + 25 to	Face: (0 + 36)	Upper Zone: None. Middle Zone: 3/8" semi-harsh fiber (Lenses). Lower Zone: Not exposed.

CONCLUSIONS

Exploration work performed by the applicant has exposed 2 areas of asbestos mineralization referred to for convenience as the North Block and the South Block. The fiber horizon in the North Block is approximately 50 feet lower in elevation than is the fiber horizon of the South Block. However, it is believed that the enclosing limestone beds of both blocks are stratigraphically equal.

Quality of fiber and the geologic potential of the North Block are better than that of the South Block. Nevertheless, the BMSA field examiners believe that the fiber of this deposit is not of strategic quality and is limited as to quantity. Factors limiting the amount of fiber are the geologically unfavorable thin-bedded limestones and the small amount of serpentinization. Additional work at this property would not result in the discovery of a significant deposit of asbestos.

RECOMMENDATIONS

Geologically unfavorable thin limestone beds, weak serpentinization, non-strategic fiber, and a total fiber content of plus 1 inch within 3 widely spaced zones are considerations reviewed in concluding that no further exploration is justified at this deposit. Therefore, it is recommended that the application for exploration be denied.

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

DEPARTMENT OF THE INTERIOR
Administration
MAR 26 1954

224 New Customhouse
Denver 2, Colorado

March 19, 1954.

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Report of Examination - DMEA Docket 3170 (Asbestos), Vernon H. Kennedy, Mountain of Mystery Claims, Pinal County, Arizona.

Enclosed are the original and three copies of the report pertaining to the above application.

The applicant requested $31,850.00 to explore at depth the extension of surface exposures of chrysotile.

We concur that exploration on this property is not warranted and we recommend that the application be denied.

W. H. King
W. H. King

E. H. Koschmann
for A. H. Koschmann

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
4-2-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

March 19, 1954.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Report of Examination - Docket No. DMEA-3170 (Asbestos), Vernon M. Kennedy, Mountain of Mystery claims, Pinal County, Arizona.

Enclosed are nine copies of the engineering report of examination on the subject docket.

The applicant requested a total of $31,850.00 to explore at depth the extension of minor surface exposures of chrysotile.

The engineer examiner concludes that because of the thin limestone beds, weak serpentinization, non-strategic fiber, and a total fiber content of plus one inch within three widely spaced zones additional exploration is not warranted.

We concur in the recommendation that the application be denied.

W. H. King

W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
4-2-54
(date)

March 8, 1954

Memorandum

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

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

Subject : Report on Docket DMEA-3170, Kennedy's Mountain of Mystery Asbestos Mine, Pinto Creek Mining District, Pinal County, Ariz.

Enclosed are original and 8 copies of the section on Summary, Conclusions and Recommendations by Fred M. Hosser of the Geological Survey and R. W. Agsten of the Bureau of Mines, and the section on Engineering by Agsten for the above report. A separate section on Geology will be submitted by the Geological Survey.

Because of unfavorable thin limestone beds, weak serpentinization, non-strategic fiber, and the possible limited size of the deposit, the examiners have recommended that the loan be denied. I concur with their recommendation.

Lincoln A. Stewart of the Bureau of Mines has examined this deposit under the Bureau's asbestos program, has read Agsten's report, and also approves it.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC W. H. King (8)
A. F. Shride
DMEA-3170
BF

WRStorms:frj

Reviewed by
DMEA OPERATING COMMITTEE
4-2-54
(date)

March 11 1954

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : Lincoln A. Stewart, Mining Engineer, Tucson, Ariz.

Subject : Report on Docket DMEA-3170, Kennedy's Mountain of Mystery Asbestos Mine, Pinal County, Ariz.

The report on the above property by Robert W. Ageton of the Bureau of Mines has been read by me. I have examined this mine under Bureau of Mines Program 906.1 - Asbestos Investigations, and concur with Ageton's conclusions and recommendations.

Lincoln A. Stewart

Lincoln A. Stewart, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

CC W. H. King (Orig. & 8)
DMEA-3170
DF

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver 2, Colorado

February 23, 1954

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 3170, Mountain of Mystery Claims (asbestos), Pinal County, Arizona

Enclosed are 9 copies of a geologic report by F. N. Houser of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be denied.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (9)

Reviewed by
DMEA OPERATING COMMITTEE
4-2-54
(date)

C O P Y PKW

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 4126, University Station
Tucson 5, Arizona

February 19, 1954

Memorandum

To: A. H. Koschmann

From: F. N. Houser, Tucson, Arizona

Subject: Examination Report, DMEA 3170, Mountain of Mystery Claims (asbestos), Pinal County, Arizona

Enclosed are the original and 8 copies of a memorandum on the subject application. It is recommended that an exploration loan be denied because only insignificant quantities of poor quality asbestos are to be expected. I understand that the Bureau's report, which will include the map referred to herein, will be transmitted in about a week.

/s/ Fred

F. N. Houser
Geologist

Reviewed by
DMEA OPERATING COMMITTEE
4-2-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA-3179, Kennedy's Mountain of Mystery Asbestos Mine

Pinto Creek Mining District, Pinal County, Arizona

F. N. Houser, Geologist
U. S. Geological Survey

Robert W. Agsten, Mining Engineer
U. S. Bureau of Mines

March 1954

Reviewed by
DMEA OPERATING COMMITTEE
4-2-54
(date)

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By Fred N. Houser[1] and Robert W. Ageton[2]

On October 20, 1953, the Executive Officer of the Defense Minerals Exploration Administration, Region IV, requested that an examination and report be made of the Mountain of Mystery claim group, situated in the Pinto Creek Mining District, Pinal County, about 10 miles westerly from Miami, Ariz. Vernon H. Kennedy, Box 1748, Miami, Ariz., owner of the claims, applied for Government assistance to explore for depth extension of surface exposures of chrysotile. The application was assigned Docket No. DMEA-X170 (asbestos). The total cost of the proposed work was estimated to be $11,850.00.

On February 5, 1954, Lincoln A. Stewart and R. W. Ageton, mining engineer, Bureau of Mines, and Fred N. Houser, geologist, Geological Survey, visited the property and mapped the surface exposures.

Exploration performed by the applicant has exposed 2 contiguous areas of asbestos mineralization differing about 50 feet in elevation. A short adit and surface cuts in the upper deposit expose a total of minus 1 inch of non-strategic fiber within widely spaced zones in weakly serpentinized, thin limestone beds. The lower deposit has not been as badly faulted and is geologically more favorable as the situs for an exploration program. However, the lack of strategic quality fiber and the apparent quantitative limitations also preclude consideration of this lower area for further exploration. Additional work at this property would not result in the discovery of a significant deposit of asbestos. Therefore, it is recommended that the application for Government assistance be denied.

1/ Geologist, U. S. Geological Survey
2/ Mining Engineer, U. S. Bureau of Mines

MOUNTAIN OF MYSTERY CLAIMS

ASBESTOS

BMEA 3170

PINAL COUNTY, ARIZONA

Geologic

by
F. N. Houser, Geologist
U.S. Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
4-2-54
(date)

MOUNTAIN OF MYSTERY CLAIMS

ASBESTOS

DMEA 3170

PINAL COUNTY, ARIZONA

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RECOMMENDATION	3

ILLUSTRATIONS

Figure 2 PLAN AND SECTION OF THE DEPOSIT OF THE MOUNTAIN OF MYSTERY CLAIM NO. 2 See Engineering Report

INTRODUCTION

The Mountain of Mystery Nos. 1, 2, 3 and 4 claims (unpatented) Kennedy Mines, located approximately in sec. 14, T. 1 N., R. 12 E., Pinal County, about 17 airmiles west of Globe, Arizona, comprise the subject of a proposed exploration program to cost $31,850. The writer, in company with L. A. Stewart and R. W. Ageton of the Bureau of Mines, examined this property on February 5.

Geology and asbestos deposits

The asbestos occurs as thin, non-persistent, cross-fiber veinlets in three zones of very weakly to moderately serpentinized limestone of the lower member of the pre-Cambrian Mescal limestone. These zones parallel the bedding of the limestone. The structural relationships of the occurrence are shown in the map and cross-section accompanying the Bureau of Mines report by Ageton. Local faulting, somewhat generalized on this map, has complicated and will complicate any further exploration of the deposit by the owner.

The property is situated in a region of complex geologic history where intricate faulting and diabase intrusion have resulted in cutting the sedimentary terrane into tilted and disoriented blocks of greatly differing sizes. The asbestos examined is in what appear to be two such blocks (referred to subsequently as the north and south blocks) of lower Mescal limestone surrounded by diabase. Apparent igneous discordancies are noted on the map; all other observed contacts were concordant. Although the exact relationships of the diabase and the Mescal are not observable everywhere, the diabase is thought to separate the blocks in the vicinity of the west-trending gully where it is

inferred to be discordant with the north block. Experience in the Arizona asbestos deposits elsewhere has indicated that such discordancies are in many places favorable loci for asbestos in adjoining limestone; however, no increase nor concentration of asbestos or serpentine was observed toward any of the discordancies at this locality. One explanation might be that the discordancies are fault contacts rather than igneous contacts.

Past experience has also shown generally massive limestone beds and generous serpentinization of the limestone to be favorable factors in the occurrence of asbestos. The three zones of this deposit are in an 8-10 foot interval of thin-bedded limestone except in the adit where the limestone is medium-bedded and along the southwest slope of the north block where for short distances it is medium- to thick-bedded. Serpentinization of the limestone has not been intensive nor extensive; only in the adit and in places on the bench face of the north block does it approach the quantity commonly observed in modest deposits of the Sierra Ancha and Salt River areas to the north.

Of the three zones, the middle was found to be the most persistently fiber bearing. It contained about ½" of fiber, in partings from 1/8" to 1/4", locally up to 3/8", in exposures in the adit and along the bench faces of both blocks. The apparent limits of the fiber in this zone are shown in the adit where it thins rapidly toward the east (into the adit). Along the bench face of the north block the fiber is cut by a fault on the east and thins about 25' short of the west end of the bench face.

Traces to 1/8" fiber were noted in the upper zone (3-4 feet above middle zone) of the north block and along the bench face of the south block. The lower zone (4-5 feet below middle zone) was exposed only in the adit on the south block where it contained a trace of fiber, and at one place in the north block where it contained up to ¼" of fiber. Both zones are very weakly mineralized and the fiber is sporadic in distribution.

The quality of the fiber observed in all zones is semi-harsh to harsh and of low tensile strength. Some fiber in the adit and at one or two places elsewhere along the exposed cuts is somewhat softer but fiber of such quality is apparently very uncommon.

RECOMMENDATION

It is recommended that Government participation in the proposed exploration program be denied because (1) of the poor quality of the asbestos fiber and (2) because of the small quantity of asbestos to be anticipated on the grounds of geologically unfavorable country rock as judged by the general thin-bedded limestone, the paucity of serpentine, and the apparent low degree of mineralization adjacent to the diabase.

DMEA-3170, KENNEDY'S MOUNTAIN OF MYSTERY ASBESTOS MINE
PINTO CREEK MINING DISTRICT, PINAL COUNTY, ARIZONA

Engineering Report

By Robert W. Agnew
Mining Engineer
U. S. Bureau of Mines

March 1954

Reviewed by
DMEA OPERATING COMMITTEE
4-2-54
(date)

DARA-3170, KENNEDY'S MOUNTAIN OF MYSTERY ASBESTOS MINE
PINTO CREEK MINING DISTRICT, PINAL COUNTY, ARIZONA

CONTENTS

Engineering report	Page
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Acknowledgment	1
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History and production	3
Ownership and extent	3
Description of deposits	3
Conclusions	6
Recommendations	6

ILLUSTRATIONS

Figure		Following page
1	Location map	2
2	Plan and section of the deposit on the Mountain of Mystery Claim No. 2	3

INTRODUCTION

On October 20, 1953, the Executive Officer of the Defense Minerals Exploration Administration, Region IV, requested that an examination and report be made on the feasibility of Government participation in an exploration project on the Mountain of Mystery group of claims, situated in the Pinto Creek Mining District about 10 miles westerly from Miami, Gila County, Ariz. Vernon H. Kennedy, Box 1748, Miami, Ariz., owner of the claims, was the applicant. Exploration was proposed to determine depth extension of surface exposures of chrysotile. The total cost of the proposed work was estimated to be $31,850.00. The application was assigned Docket No. DMEA-3170 (asbestos).

On February 5, 1953, R. W. Agnew, mining engineer, Bureau of Mines, and Fred N. Bowser, geologist, Geological Survey, visited the property in the company of Vernon H. Kennedy the owner-applicant. The surface exposures and the short adit were examined and mapped.

ACKNOWLEDGMENTS

Acknowledgment is due Vernon H. Kennedy, the owner-applicant. Kennedy accompanied the DMEA field examiners to the mine and gave them information regarding the project proposal. Data supplied by Kennedy was of value in drawing conclusions as to the merits of the project. Acknowledgment also is due Lincoln A. Stewart of the Bureau of Mines, who mapped this deposit at the same time that it was visited by the DMEA examiners.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Mountain of Mystery claims are situated in the Pinto Creek Mining District, Pinal County, Ariz., about 10 miles westerly from Miami, Ariz. To be more precise, the claims lie approximately in unsurveyed sec. 13, T. 1 N., R. 12 E.

The property is reached by proceeding southwesterly from Miami, Ariz., for 3.5 miles along U. S. Highway 60 - 70 to the junction with the road to the Castle Dome Open Pit mine. The abandoned pit is a prominent landmark easily recognized from the highway. Follow the Castle Dome road for 2.3 miles, then observe well-marked signs to the Kennedy ranch, which is a total of 14.5 miles from U. S. Highway 60-70. The Mountain of Mystery group of claims lies southwestern from the ranch and is accessible by a pioneer road 1.5 miles long. This road is passable only with compound-geared trucks or 4-wheel drive vehicles.

The Mountain of Mystery deposit outcrops along the western slope of a prominent hill southwesterly from the Kennedy ranch. Mine workings are at an altitude of about 3,775 feet above sea level as estimated with an aneroid barometer. The climate is ideal for mining purposes during both the winter and the summer months. An adequate water supply could be obtained for a limited exploration program, and Arizona cypress trees could be utilized for lagging, light timbering, and track ties.

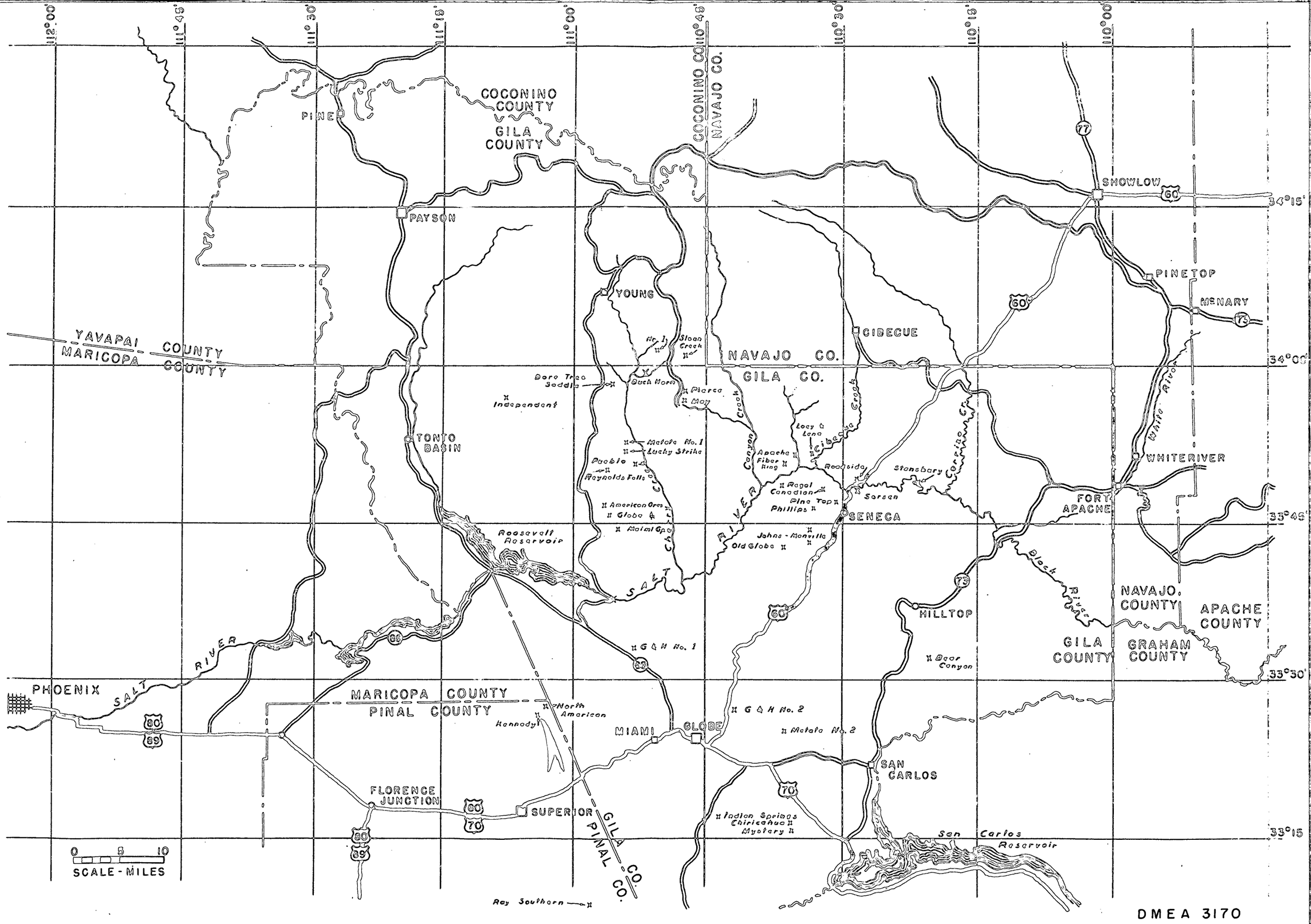


FIGURE 1. - LOCATION MAP - ASBESTOS DEPOSITS - CENTRAL ARIZONA

HISTORY AND PRODUCTION

Asbestos outcrops in the Pinto Creek Mining District were known as early as 1903. The first asbestos claims were located 4 miles northwest of Herrell's ranch, about 9 miles northwest of Miami, Gila County, Ariz. Herrell's Ranch is approximately 5.0 miles northeasterly from the applicant's Mountain of Mystery group of claims.

From data supplied by the applicant, some asbestos fiber was mined for test milling. Settlement sheets submitted for examination indicated that purchases were contingent pending yield results. Final settlement sheets were not offered for inspection. So far as is known the total fiber mined and submitted for test milling is as follows:

Grade	Pounds
No. 2	1,183
No. 3	465

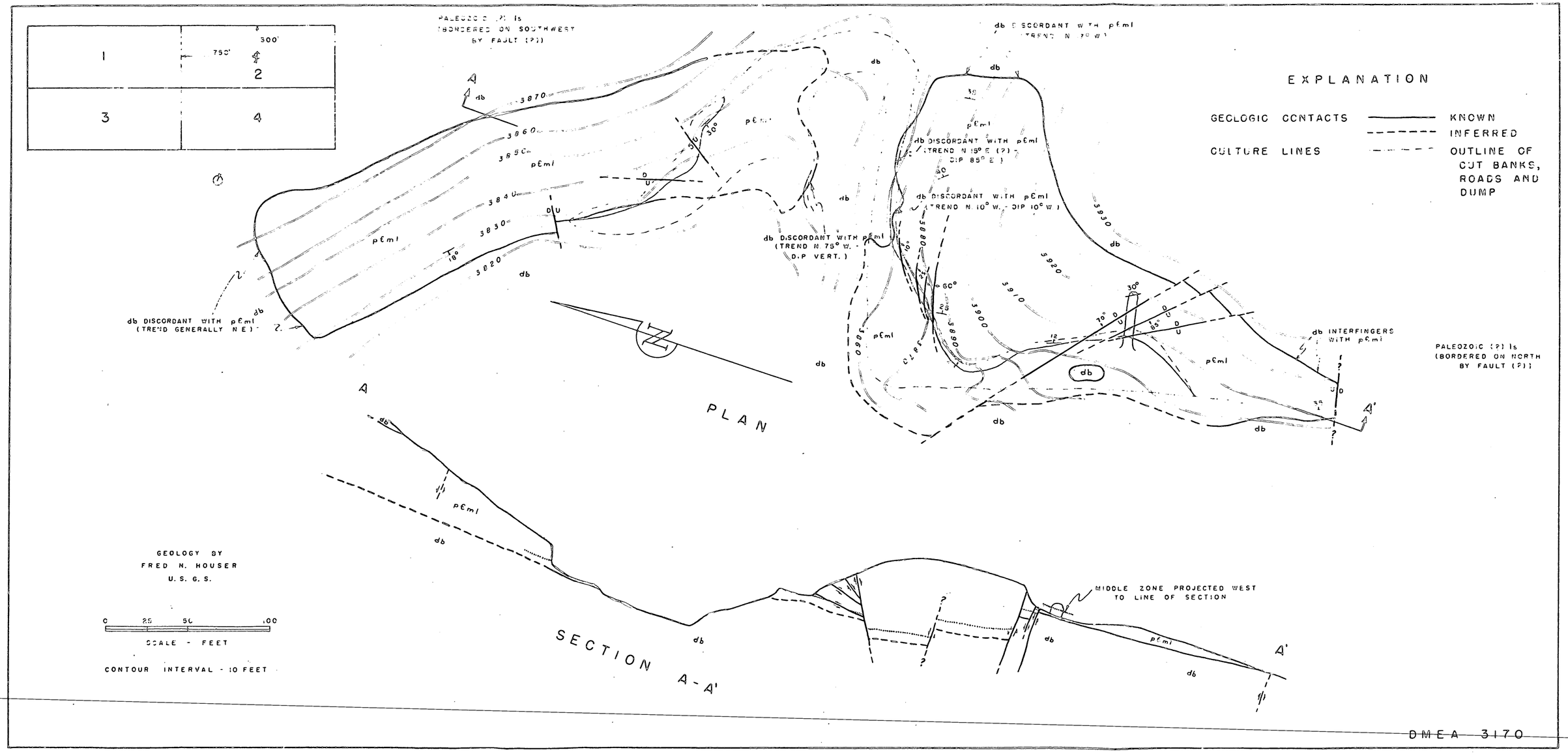
OWNERSHIP AND EXTENT

The Mountain of Mystery group of unpatented lode mining claims is owned by Vernon H. Kennedy, Box 1748, Miami, Ariz. These claims are recorded in the Pinal County Recorder's Office, Florence, Ariz., as follows:

	Docket	Page
Mountain of Mystery No. 1	74	357
Mountain of Mystery No. 2	74	358
Mountain of Mystery No. 3	74	359
Mountain of Mystery No. 4	74	360

DESCRIPTION OF GEOLOGY

At the Mountain of Mystery deposit, chrysotile occurs in 3 zones in Pre-Cambrian Mescal limestone that is overlain and underlain by concordant diabase sills (figure 2). Considerable post-mineral faulting



DMEA 3170

FIGURE 2. - PLAN AND SECTION OF THE MOUNTAIN OF MYSTERY CLAIM NO. 2

PINTO CREEK MINING DISTRICT PINAL COUNTY, ARIZONA

has complicated the structure of this deposit, resulting in a general downfaulting pattern that starts from the adit exposed near the southern limit of the deposit and extends about 350 feet towards the northern boundary. A combination of post-mineral faulting, together with diabase intrusion has placed the northern section of the ore deposit approximately 50 feet below the southern half. In order to facilitate the discussion of fiber exposures, reference will be made to the 2 sections of the deposit, the North Block and the South Block.

Prior to the BMEA field examination, an exploration cut was made on the North Block exposing approximately 100 feet of the ore horizon. Three fiber zones were exposed in weakly serpentinized limestone. They are as follows:

Upper Zone: Trace.
3.0 ft. interval.
Middle Zone: 1/4" to 1" semi-soft fiber (many partings).
5.0 ft. interval.
Lower Zone: Trace to 1/2" semi-harsh fiber.

Limestone beds in the North Block range from $1\frac{1}{2}$ to $4\frac{1}{2}$ feet thick and are suggestive of limestone beds that have been favorable loci for asbestos mineralization in Gila County. However, diabase is discordant at each end of the North Block and it is possible that the deposit is limited in depth by contact with a discordant diabase sill. Lack of quality fiber and possible depth limitations indicate that further exploration is not justified in this location.

The South Block (approximately 50 feet in elevation above the North Block) was explored by an open cut 300 feet long, and by a 36-foot inclined adit. Two fiber bands were exposed in this area and average as follows:

(?) Upper Zone: 1/16" to 1/8" harsh fiber (weathered).
4 - 5 ft. interval.
(?) Middle Zone: 3/8" to 3/4" semi-harsh fiber (many partings).
5.0 ft. interval.
Lower Zone: Not exposed.

Limestone beds in this southern section of the deposit are thin (up to 1 feet thick) and are similar to thin bedded, weakly serpentinized limestone deposits of Gila County that have proven to be unfavorable ore hosts., In addition to the factors of poor quality fiber and small total fiber content of the South Block, is the possibility that the deposit is limited in depth by contact with a discordant diabase sill.

Examination of the adit in the South Block disclosed 3 steeply dipping faults, trending northwesterly. Each fault has offset the beds from 1 to 2 feet with the downthrew on the northeast side. These post-mineral faults have complicated the structure and offset the limestone beds to such an extent that it would not be feasible to mine asbestos fiber in this section of the deposit. Fiber exposures noted in the adit are as follows:

Portal to Sta. 0 + 08:		Upper Zone: Not exposed. Middle Zone: Not exposed Lower Zone: Trace.
0 + 08 to	0 + 25:	Upper Zone: Not exposed. Middle Zone: 3/4" to 1" semi-harsh. fiber (partings up to 3/8"). Lower Zone: Not exposed.
0 + 25 to	Face: (0 + 36)	Upper Zone: None. Middle Zone: 3/8" semi-harsh fiber (Lenses). Lower Zone: Not exposed.

CONCLUSIONS

Exploration work performed by the applicant has exposed 2 areas of asbestos mineralization referred to for convenience as the North Block and the South Block. The fiber horizon in the North Block is approximately 50 feet lower in elevation than is the fiber horizon of the South Block. However, it is believed that the enclosing limestone beds of both blocks are stratigraphically equal.

Quality of fiber and the geologic potential of the North Block are better than that of the South Block. Nevertheless, the DMEA field examiners believe that the fiber of this deposit is not of strategic quality and is limited as to quantity. Factors limiting the amount of fiber are the geologically unfavorable thin-bedded limestones and the small amount of serpentinization. Additional work at this property would not result in the discovery of a significant deposit of asbestos.

RECOMMENDATIONS

Geologically unfavorable thin limestone beds, weak serpentinization, non-strategic fiber, and a total fiber content of plus 1 inch within 3 widely spaced zones are considerations reviewed in concluding that no further exploration is justified at this deposit. Therefore, it is recommended that the application for exploration be denied.

600

APR 1 6 1954

Mr. Vernon H. Kennedy
Box 1748
Miami, Arizona

Re: Docket No. DMEA-3170 -- Asbestos
Kennedy Mines
Pinal County, Arizona

Dear Mr. Kennedy:

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

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

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

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

Sincerely yours,

C. O. Mittendorf

Administrator

LCHouk:gad 4/7/54
Copy to: Admr. R. File
Docket File
Operating Committee
Field Team, Region IV
Dr. Bowles, 3516
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

April 15, 1954

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A denial of exploration assistance.

1. Docket No. DMEA-3170 - Asbestos
Kennedy Mines
Pinal County, Arizona

Applicant: Vernon H. Kennedy
Box 1748
Miami, Arizona

2. Application: Form MF-103, dated September 17, 1953
Amount requested: $31,850
No contract: Application denied.

3. Comments:

Recommendation: The Nonmetallic Minerals Division concurs with the field team that exploration assistance is not warranted. The Geological Survey and the Bureau of Mines recommend that the application should be denied because of the non-strategic quality of the asbestos and the probable small size of the scattered deposits.

Future possibilities: Additional exploration not warranted. Because of unfavorable thin limestone beds, weak serpentenization, non-strategic fiber and the limited size of the deposit.

LGHouk:gad 4/15/54
Copy to: Admr. R. File
Mr. Houk

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

Defense Minerals Administration
RECEIVED
APR - 8 1954

April 8, 1954

Memorandum

To: Mr. Lawrence G. Houk, Director, Non-Metallic Minerals Division, Defense Minerals Exploration Administration

From: Oliver Bowles, Commodity Specialist, Construction and Chemical Materials Branch

Subject: DMEA 3170, Mountain of Mystery Claims, Pinal County, Arizona

I have read the geologic and engineering reports on these claims, and I concur in the recommendation of Messrs. Houser, Ageton, and Stewart that the application be denied because of the non-strategic quality of the fiber and the probable small size of the deposit.

Oliver Bowles

IN REPLY REFER TO:

G-MD-CNM

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

March 31, 1954

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3170 (asbestos)

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey
Applicant: Vernon H. Kennedy.
Name of property: Mountain of Mystery Claims.
Location of property: Pinal County, Arizona.
Date of field team report: February 19, 1954.
Authorship of field team report: F. N. Houser and R. W. Ageton.
Field team's recommendation: Denial.
Comments: Insignificant quantities of strategic asbestos expected.
Geologic nature of the deposit is unfavorable.
ACTION RECOMMENDED: Follow field team's recommendation.

D. M. Larrabee

Larrabee:jeh
3/31/54
cc: DMEA 3
Director's reading 4212
Branch reading 4212
Larrabee G-230

File This

March 19, 1954

Memorandum to Mr. Houk:

Subject: Status of field team examination - Docket No. DMEA-3170 - Asbestos
Vernon H. Kennedy
Kennedy Mines
Pinal County, Arizona

Amount requested $31,850 - 90% Government participation

9/21/53 MF-103 rec'd in Nonmetallic Minerals Division by memo from Reg. 4 dated 9/17/53.

9/24/53 Memo from USGS 9/22/53 - refer to field team.

10/12/53 Memo from USBM 10/8/53 - refer to field team.

10/13/53 Let to Reg. 4 recommending field exam.

10/13/53 Let to applicant advising of possible field exam.

******

12/15/53 Mo. Rpt. Reg. 4 (Nov.1953) When examiners are available.

1/14/54 Dec. 1953 Mo. Rpt. When personnel is available.

1/15/54 Dec. 1953 Mo. Rpt. Will not be examined before Jan. 1954.

2/26/54 Jan. 1954 Mo. Rpt. Will be exam. when personnel available.

3/4/54 Jan. 1954 Mo. Rpt. Will probably be exam. late in Jan.

3/11/54 Feb. 1954 Mo. Rpt. USGS Rpt. received - USBM Rpt. in preparation.

3/16/54 Feb. 1954 Mo. Rpt. DMEA examiners visited & rpts. in preparation.

May I prepare a draft requesting Reg. 4 advise this office when we may expect report on examination of Kennedy Mine which was recommended October 13, 1954??

3

gad

No

DEFENSE MINERALS ADMINISTRATI

97023

PRODUCTION EXPANSION DIVISION

PROCUREMENT APPLICATIONS

Name of Company and Address _____

Name of Mine and Location _____

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

Metals or Minerals involved _____

Length of Contract (preproduction plus production) _____

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

Floor price or Guaranteed price and whether or not escalated _____

Maximum Government Commitment _____

Comments on Contract: _____

_____

_____

_____

_____

_____

Date sent to Legal Division _____

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

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

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

Additional Remarks: _____

_____

_____

_____

_____

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

Interior—Duplicating Section, Washington, D. C.

Signed _____

OCT 1 4 1953

Mr. Vernon H. Kennedy
Box 1746
Miami, Arizona

Re: Docket No. DMMA-3170 - Asbestos
Kennedy Mines
Pinal County, Arizona

Dear Mr. Kennedy:

Your application for assistance in exploring the subject property has been reviewed by the Nonmetallic Minerals Division of the Defense Minerals Exploration Administration and has been referred to Mr. V. H. King, Executive Officer, DMEA Field Team, Region IV, Bureau of Mines, 224 New Customhouse Building, Denver 2, Colorado, for further consideration and possibly a field examination.

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

Sincerely yours,

Frank E. Johnson

ACTING Administrator

WCAnderson:gad 10/13/53
Copy to: Admr. R. File
Docket File
Field Team, Region IV
Operating Committee
Dr. Bowles, 3516
Mr. Larrabee, G-232 GSA Bldg.
Mr. Rouk

600

OCT 14 1953

Mr. A. H. King
Executive Officer, DMTA
Field Team, Region IV
Bureau of Mines
224 New Customhouse Bldg.
Denver 2, Colorado

Subject: Docket No. DMTA-3170 - Asbestos
Vernon H. Kennedy
Kennedy Mines
Pinal County, Arizona

Dear Mr. King:

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

Copies of memoranda from the Geological Survey and the Bureau of Mines are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

J. H. Hedges

Member, Bureau of Mines

T. P. Thayer

Member, Geological Survey

Enclosures 4

WCAnderson:gad 10/13/53
Copy to: Admr. R. File
Docket File
Operating Committee
Dr. Bowles, 3516
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

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

October 8, 1953

Memorandum

To: Lawrence G. Houk, Director, Non-Metallic Minerals Division, Defense Minerals Exploration Administration

From: G. W. Josephson, Chief, Construction and Chemical Materials Branch

Subject: Docket DMEA-3170 (Asbestos)
Vernon H. Kennedy
Kennedy Mines
Pinal County, Arizona

The subject application (DMEA Docket 3170) has been reviewed in this Branch.

It appears that this is a typical Arizona asbestos occurrence which may have sufficient value to warrant an exploration loan.

I suggest that the application be referred to the field team for investigation.

G. W. Josephson
Chief, Construction and
Chemical Materials Branch

IN REPLY REFER TO:

G-MD-CMN

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

Department of the Interior
Defense Minerals Administration
DMEA 32
SEP 23 1953

September 22, 1953

Memorandum

REVIEW OF APPLICATION DMEA-3170 (Asbestos)

To: L. G. Houk, Defense Minerals Exploration Administration
From: Donald A. Brobst, U. S. Geological Survey
Applicant's name and address: Vernon H. Kennedy, Box 1764, Miami, Arizona.
Name of property: Mountain of Mystery Nos. 1, 2, 3, 4 - Kennedy Mines.
Location of property: Pinal District, 20 miles north of Superior, Arizona -- take Castle Dome road which turns off Highway 60-70 6 miles west of Miami. Two miles from Castle Dome turn into Pinto Cr. road and follow signs to Kennedy Ranch.
Summary of applicant's proposal:
No definite proposal for operation given; but it is to last 6 months. A total of $31,850 is requested.
Sources of information on applicant's property:
The files contain no information on this property.
Comments:

1. No definite proposal is given, but the applicant is interested-- some trenching and tunneling have been done.
2. Three tons already marketed, 3 tons on stockpile at mine. Grade is 1, 2, and 3; mostly grade 2.
3. A road has been built to the property at a cost of $9,000.
4. Ore lies in "serpentine, lime, and diabase background." Probably contact metamorphic deposits similar to those in neighboring Gila County.
5. We should find out whether grade is strategic then have applicant formulate a definite plan of exploration. A field examination might lead to a sound and perhaps less costly exploration contract, if the grade of ore warrants it.

RECOMMENDATION:
Refer to the field team.

Brobst:jeh
9/22/53
cc: Director's reading 4212
Branch reading 4212
DMEA 3
Brobst G-230

Donald A. Brobst