1549

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

224 New Customhouse
Denver 2, Colorado

March 9, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 12 1953

Memorandum

To: Secretary, Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, DMEA Field Team, Region IV

Subject: Final Report - Docket No. DMA 1549X, R. W. Mathis (Lead-Zinc), Grant County, New Mexico.

Enclosed are four copies of the final report on Docket No. DMA 1549X. The contract has been completed and is in force.

W. H. King
W. H. King

Enclosure

Cole
3-12

Reviewed by
DMEA OPERATING COMMITTEE
3-16-53
(date)

Mining Division
Region IV

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 12 1953

March 28, 1952

Memorandum

To: Field Team, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 1549, Mathis & Mathis, Houston-Thomas Zinc-Lead Claims, West Pines Altos District, Grant County, New Mexico

Enclosed are eight copies of the Engineering Report by T. M. Romslo of the Bureau of Mines on subject application. Eight copies of the Geologic Report by C. S. Bromfield of the Geological Survey are also enclosed.

The project consists of drilling a minimum of 15 holes to test certain geologically favorable targets on structures similar to those that have localized ore bodies.

The estimated cost of the project is $28,362.40.

We concur with the conclusion of the examining engineers that the proposed drilling has a reasonable geologic chance of ore discovery and we recommend that the application be approved.

W. H. King
W. H. King

Reviewed by
DMEA OPERATING COMMITTEE
3-16-53
(Date)

February 27, 1952

~~Memorandum~~

To : W. H. King, Denver, Colorado

From : Chief, Arizona-New Mexico Branch

Subject : Final Report, DMEA Docket 1549, Mathis & Mathis Houston-Thomas Zinc-Lead Claims, West Pinos Altos District, Grant County, N. Mex.

Enclosed are original and 7 copies of the section on Summary, Conclusions and Recommendations by C. S. Bromfield of the Geological Survey and T. M. Remale of the Bureau of Mines, and the section on Engineering by Remale for the above report. A separate report on Geology will be submitted by the Geological Survey.

This report has my approval.

~~Brochure is enclosed.~~

Walter E. Stoms

CC W. H. King (7)
C. A. Anderson
DMEA-1549
DF

WPStoms:ale

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

200 New Customhouse
Denver 2, Colorado

March 24, 1952

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 1549X, Houston-Thomas Claims (Mathis and Mathis), Grant County, New Mexico (Lead-Zinc)

Enclosed are the original and 8 copies of the geologic report by C. S. Bromfield of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be approved.

The brochure is enclosed.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (X)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P.O.Box 4126, University Station
Tucson, Arizona

March 19, 1952

Memorandum

To: A. H. Koschmann, Denver, Colorado

From: A. F. Shride, Tucson, Arizona

Subject: Geologic Report, DMEA 1549X, Houston-Thomas Claims (Mathis and Mathis), Grant County, New Mexico (Lead-Zinc)

Enclosed are the original and 8 copies of the above report by C. S. Bromfield of the Geological Survey.

This report and the recommendations favorable to a diamond-drilling program have my approval. The recommendations are based largely on past successful interpretations of gossans and geologic structure in the area. The applicant has been one of those operators successful in such interpretation.

The brochure is enclosed.

A. F. Shride
Acting District Supervisor
Arizona-New Mexico

Enclosures 10

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA-1549, Mathis & Mathis Houston-Thomas Zinc-Lead Claims

West Pinos Altos District, Grant County, N. Mex.

C. S. Bromfield, Geologist
U. S. Geological Survey

T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

February 1952

Reviewed by
DMEA OPERATING COMMITTEE

(date)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By C. S. Bromfield[1] and T. M. Romslo[2]

The Houston-Thomas zinc-lead property, Grant County, N. Mex., was examined in connection with a request for Government exploration assistance by Mathis and Mathis, P. O. Box 452, Silver City, N. Mex. The examination was made by the Defense Minerals Exploration Administration under docket DMEA-1549X, as part of its program authorized by the Defense Production Act of 1950. It was made to determine if a proposed exploratory project warranted financial participation on the part of the Government.

Carbonate ores of zinc and lead formerly were produced from the property. At 2 places, zinc-lead sulfide ores were encountered below the carbonate ores and several thousand tons of sulfide ore was produced from these deposits prior to 1947. In 1947, a new discovery of sulphide ore was made by the Bureau of Mines (West Pinos Altos Project 15-203). The deposit, the Atlas no. 2, was opened in 1947. It, and a nearby deposit discovered by the applicant, has yielded 31,460 tons of ore containing 8.43 percent zinc, 2.2 percent lead, 0.2 percent copper and 2.45 ounces of silver a ton. During 1951, the applicant discovered another mineralized zone by diamond drilling from the surface. An adit is presently being driven to this indicated ore zone.

In the Houston-Thomas area, Pennsylvaian Magdalena limestone, Cretaceous Beartooth quartzite, and Colorado shale are intruded by

---

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

dikes, sills, and irregular masses of diorite porphyry. Zinc-lead ore occurs in tabular replacement deposits usually oriented with the bedding in the Magdalena limestone. The ore bodies are localized by prominent northwesterly striking fractures and shear zones, and also are commonly near dikes and irregular crosscutting bodies of diorite porphyry. Several gossan areas, some quite extensive, are in the area. Some gossans evidently are not underlain by sulfide ore, and some are. With present knowledge, the presence or absence of a gossan is inconclusive evidence for the presence or absence of ore. The sulfide ore consists of sphalerite (marmatite), galena, chalcopyrite, and pyrite.

Present production of about 300 tons of ore monthly is confined to the Atlas no. 2 mine. The ore is shipped to a mill of the American Smelting and Refining Co. at Deming, N. Mex. The returns on average grade ore, before mining costs, are about $13.36 a ton. At present, the mining costs are about $8.00 a ton. The ore is of a slightly lower than average grade. In addition to the current mining operation that employs 3 men, 2 men are engaged in driving an adit to the new ore discovery and 2 men are operating a core-drill on both surface and underground explorations.

The proposed exploration consists of putting down one or more core holes in each of 15 areas where geologic structures and surface features are favorable to ore mineralization at depth. It is estimated that the depth of drill holes will range from 100 to 300 feet, and that

5,000 feet of drilling will be required. It is planned to use 2 diamond drill rigs and to complete the drilling in 10 months at an estimated cost of $28,362.40.

The writers have concluded that the project is technically feasible and that the applicant can be expected to carry out the work in a competent manner. They also have concluded that geologic conditions are favorable for discovery of small replacement ore bodies of the type now being economically exploited.

It is recommended that the proposed exploratory project be carried out and that 50 percent of its estimated cost of $28,362.40, (or $14,181.20) be financed by the Government.

MATHIS & MATHIS
HOUSTON-THOMAS CLAIMS
WEST PINOS ALTOS DISTRICT
GRANT COUNTY, NEW MEXICO
DMEA 1549X

ZINC-LEAD

Geology

By Calvin S. Bromfield
Geologist, U. S. Geological Survey

MATHIS & MATHIS
HOUSTON - THOMAS CLAIMS
WEST PINOS ALTOS DISTRICT
GRANT COUNTY, NEW MEXICO
DMEA 1549X

ZINC-LEAD

CONTENTS

	Page
Introduction	1
Rocks	1
Structure	1
Ore Deposits	3
Proposed Drilling Program	5
Geologic Conclusions	7

ILLUSTRATIONS

Figure		Following Page
1	Location Map	See Engineering Report
2	Claim Map	" " "
3	Geologic Map Showing Proposed Work	4

INTRODUCTION

The Houston-Thomas claims are in the West Pinos Altos district, Grant County, New Mexico. In the area of the claims zinc-lead limestone replacement bodies are localized along igneous contacts and high-angle northeast trending fractures.

ROCKS

The sedimentary rocks in the area of the Houston-Thomas claims consist of the Pennsylvanian Magdalena limestone, and Cretaceous Beartooth quartzite and Colorado shale. The Magdalena limestone dips gently eastward under the area and is unconformably overlain by Beartooth quartzite and Colorado shale.

The sedimentary rocks occur as isolated bodies surrounded and underlain by a diorite porphyry mass. Available geologic data indicate that the diorite porphyry mass is probably a thick laccolithic body or bulge on a sill which underlies an extensive area. Drilling to a depth of 1100 feet in the area of the Atlas No. 2 mine failed to find the bottom of the diorite porphyry body. Numerous dikes, sills, and irregular bodies of diorite porphyry and andesite porphyry cut the sediments.

STRUCTURE

The detailed structure of the district appears simple as shown on available small scale maps. Recent work by mining companies, however, reveals many complexities.[1/]

1/ Hernon, R. E., et al., Geology and Ore Deposits of the Silver City Region, New Mexico, Guidebook Field Trip No. 3, West Texas Geol. Soc. and Southeastern New Mexico Section AIMME, p. 39, 1949.

A reverse or thrust fault is indicated by Bureau of Mines drilling in the northern part of the area.[2/] It strikes northwest and dips southwest. The fault is pre-intrusive and pre-ore; however, the geometry of the fault is poorly understood.

A major northeast trending, west dipping normal fault, known as the Houston-Thomas fault, crosses the area of the claims (Fig. 3). The fault has approximately 300 feet of vertical displacement. There are many minor faults and shear zones of parallel northeasterly trend and steep northwesterly dip; these faults were important in localizing the ore. Steeply dipping cross-fractures of northwesterly trend and small displacement can be observed in the stopes.

2/ Soule', J. H., West Pinos Altos Zinc-Lead Deposits, U. S. Bur. of Mines Rept. Inv. 4237, p. 6, 1948.

ORE DEPOSITS

The important ore bodies in this area are tabular zinc-lead replacement bodies oriented parallel to the bedding in the Magdalena limestone. The ore bodies are associated with fractures of northeasterly trend and are also commonly associated with dikes of diorite porphyry or andesite.

The largest production in the general area has come from the Cleveland Mine which adjoins the Houston-Thomas claims on the south. This mine, now dormant, has produced 134,000 tons of zinc-lead ore.

Ore bodies on the Houston-Thomas group include the Atlas No. 1, Atlas No. 2, and the Houston-Thomas ore bodies. The combined production from the Houston-Thomas and Atlas No. 1 ore bodies was only 11,031 tons. The Atlas No. 2 mine has produced 31,460 tons of ore up to February, 1952.

Previous exploration has had some success in the area. The Atlas No. 2 ore body was discovered through diamond drilling by the Bureau of Mines on a gravity anomaly determined from a geophysical survey by the applicant. The deposit is in limestone along and near the west side of a dike and over a diorite porphyry mass. Steep westerly dipping, northeasterly trending fractures can be observed in the back of the stope. The stope has a length of 230 feet paralleling the dike and the northeast fractures, a maximum width of 90 feet, and a maximum thickness of 30 feet. The applicant discovered additional ore by drifting 175 feet easterly through the dike. Two recent drill holes approximately 300 feet south of the Atlas No. 1 mine penetrated

8 and 11 feet of ore respectively at a depth of 66 feet. Where they penetrated ore they were 25 feet apart horizontally. At the time of the examination the applicant was driving an adit into this ore from the south (Fig. 3).

Several gossans, some quite extensive, outcrop in the area. The main ones include the Cleveland gossan area, Southern gossan area, Central gossan area, and Northern gossan area (Fig. 3). Some oxide ore has been produced from each of these gossan areas. In the Pinos Altos district some gossans reflect an underlying ore body, but some apparently represent completely oxidized deposits which are not underlain with sulphide ore. Some ore bodies may be hidden and not reflected by gossans at the surface. Small amounts of iron oxides along northeast fractures may indicate "leakages" of mineralization above concealed replacement ore bodies. Not enough geological detail is known in the area to interpret the meaning of a gossan in terms of possible ore at depth.

The primary ore consists chiefly of iron bearing sphalerite (marmatite), galena, pyrite, and chalcopyrite. Silver occurs in amounts ranging from one to 5 ounces a ton, and gold is present in insignificant amounts. The gangue is chiefly carbonates and silica.

The grade of ore mined in the Atlas No. 2 mine has averaged 8.43 percent zinc, 2.2 percent lead, 0.2 percent copper, and 2.45 ounces of silver per ton. Ore from the Houston-Thomas mine was of a similar grade.

The sedimentary rocks have not been markedly altered adjacent to intrusions. Epidotization and some garnetization have been observed.

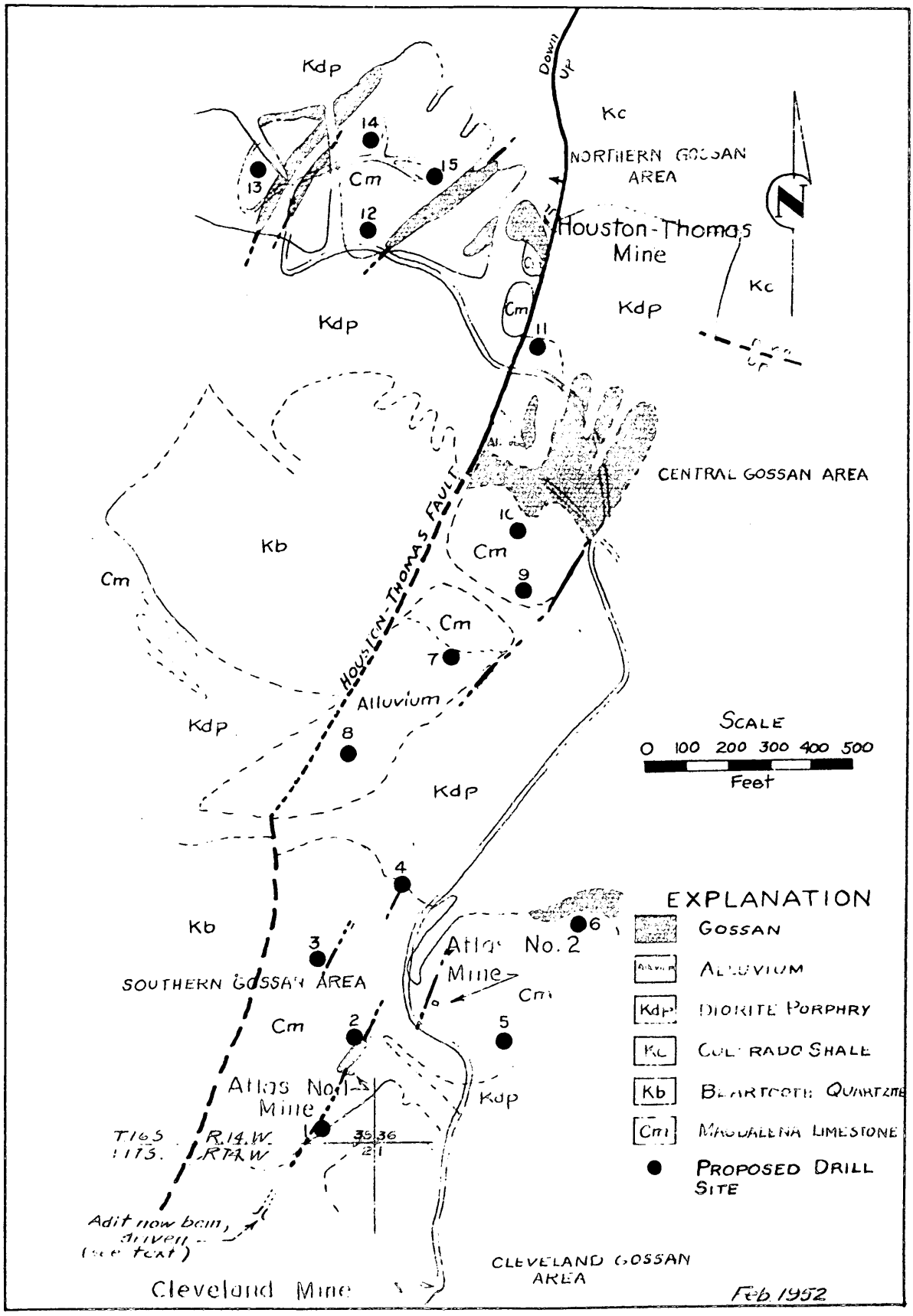

Figure 3. Geologic Map Showing Location of Proposed Diamond Drilling
DMEA 1549 X

PROPOSED DRILLING PROGRAM

The applicant plans a minimum of 15 diamond drill holes on 15 targets, with additional holesto be drilled where indicated by results of early work. The general location of holes is shown on Figure 3. Individual holes would reach a maximum depth of 300 feet, and would probably average 150 to 200 feet. The program proposes a total of 5000 feet of drilling. The 15 sites are on geologically favorable targets which include northeast trending fractures and shear zones, limestone-diorite porphyry contacts, potential sulphide bodies indicated by gossans, and combinations of these.

As drilling progresses it probably would be desirable to drill more than one hole on certain of the 15 targets. These might include holes to obtain better intersections based on completed drilling results, to further test ground where some indications of mineralization are encountered, or, if mineralization of ore grade is penetrated, to better indicate the significance of the discovery.

Targets to be tested by each of the initial holes are outlined as follows:

DDH No.	Target
1	To test area on strike with recently discovered mineralization.
2	To test below gossan-carbonate ore of Atlas No. 1 mine at intersection of northwest fractures with underlying limestone-diorite porphyry contact.
3	To test northwest fracture and limestone intersection at depth.
4	Now drilling; gossan on northwest structure near diorite porphyry contact; probably another hole in this area.

DDH No. (cont'd.)	Target
5	To test along extension of Atlas No. 2 structure to south.
6	To test gossan-lime-diorite contact at depth.
7	To test for limestone under diorite near outcrop of fissure containing galena.
8	Small outcrops of epidotized limestone; some galena in pit; test structure at depth.
9	To test limestone-Houston-Thomas fault contact at depth. Iron oxide stains at surface.
10	To test limestone-gossan contact at depth. Lead carbonate ore in gossan-dike contact at surface.
11	To test a limestone-gossan contact at depth.
12	Lead carbonate in gossan at surface. Test at depth.
13	To test strong northeast structure at depth. Some gossan.
14	To test northeast fractures at depth. Iron oxide along fractures at surface.
15	To test under gossan along strong northeast fault.

GEOLOGIC CONCLUSIONS

Replacement lead-zinc bodies of tabular shape occur localized along steep northeast trending fractures in limestone. They are usually near igneous contacts. From existent knowledge of occurrence gossans may or may not reflect underlying ore bodies. Gossans have overlain the Cleveland, Atlas No. 1, and Houston-Thomas mine and lie within the gravity anomaly that reflected the underlying Atlas No. 2 mine. The applicant proposes to drill a minimum of 15 holes to test certain geologically favorable targets, including northeast trending fractures and shear zones, limestone-diorite porphyry contacts, ground underlying gossans, and combinations of these. These targets are on structures similar to those that have localized known ore bodies, and present a reasonable geologic chance of discovery.

The history of drilling in the area is encouraging. Recent drilling by the applicant has encountered ore grade material southwest of the Atlas No. 2, and past drilling by the Bureau of Mines was successful in discovering the Atlas No. 2 ore body. The applicant is a trained geologist and an experienced mine operator, and is, through his experience in the district, familiar with the geological controls for ore. The applicant has demonstrated his ability to find additional ore by this knowledge. The ground is amenable to drilling and core recovery in limestone and diorite porphyry is at least 75-80 percent, and in ore over 90 percent.

It is concluded that the proposed drilling has a reasonable chance of discovering small replacement ore bodies of zinc-lead of the magnitude of the Atlas No. 2 (30,000 tons), and it is recommended that the loan be approved.

MATHIS & MATHIS HOUSTON-THOMAS ZINC-LEAD CLAIMS
WEST PINOS ALTOS DISTRICT, GRANT COUNTY, N. MEX.
DMEA-1549

Engineering Report

By T. M. Romslo
Mining Engineer
U. S. Bureau of Mines

February 1952

MATHIS & MATHIS HOUSTON-THOMAS ZINC-LEAD CLAIMS
WEST PINOS ALTOS DISTRICT, GRANT COUNTY, N. MEX.
DMEA-1549

CONTENTS

Engineering Report	Page
Introduction	1
Acknowledgments	2
Location and accessibility . . .	2
Physical features and climate. .	3
History and production	3
Property and ownership	5
Description of the deposits. . .	5
Present status	6
Proposed exploration	7
Estimated cost of project . . .	8
Proposed financing	10
Conclusions	11
Recommendations	11

ILLUSTRATIONS

Figure		Following page
1	Location map	2
2	Claim map	5
3	Geological map (see geologic report)	

INTRODUCTION

The examination was made of the Houston-Thomas zinc-lead property in Grant County, N. Mex. in connection with an application for Governmental exploration assistance by R. W. Mathis, one of the partners of Mathis and Mathis, P. O. Box 452, Silver City, N. Mex. It was made by the Defense Minerals Exploration Administration, under docket DMEA-1549X, as part of its program authorized by the Defense Production Act of 1950. The object of the examination was to determine if the Government would be justified in participating with the applicant in an exploratory program designed to discover new deposits of zinc-lead ore. This report contains factual information obtained during the course of the examination and presents conclusions and recommendations as they pertain to the Defense Minerals Exploration Administration.

The applicant proposed to diamond-drill a minimum of 15 holes for a total of 5,000 feet. It was estimated the work could be completed in 25 weeks at a cost of $21,618.20. During the investigations these estimates were revised to completion of the project in 10 months at a cost of $28,362.40.

The property was examined February 13, 1952 by T. M. Romslo, Bureau of Mines, who on the following day completed the examination with C. S. Bromfield, Geological Survey. R. W. Mathis, the applicant, was present on both days of the examination.

ACKNOWLEDGMENTS

Much of the information contained in this report has been taken from the following 2 Bureau of Mines' publications: Report of Investigation 4237, West Pinos Altos Zinc-Lead Deposits, Grant County, N. Mex. by John H. Soule', and I. C. 7524, Mining Methods and Costs at the Atlas No. 2 Zinc-Lead Mine, West Pinos Altos Mining District, Grant County, N. Mex. by Walter R. Storms.

LOCATION AND ACCESSIBILITY

The property is about 6 air-miles north of Silver City, N. Mex., the county seat of Grant County (fig. 1). Silver City is on U. S. Highway 260 and is serviced by a branch line of the Atchinson, Topeka and Santa Fe Railroad. This line connects with the main line of the Southern Pacific Railroad at Deming, about 50 miles to the southeast, and connects with the ElPaso - Albuquerque branch of the Santa Fe at Rincon, about 40 miles northeast of Deming.

The property is reached from Silver City by traveling north on the Little Walnut road to a junction in the road that is reached just before entering the Little Walnut picnic grounds of the Gila National Forest. The road to the right at the junction is followed to its end at the Houston-Thomas mine, near the northern boundary of theproject area. The total distance from Silver City is about 10 miles; the first 2 miles are paved and the remainder is a well-maintained dirt road.

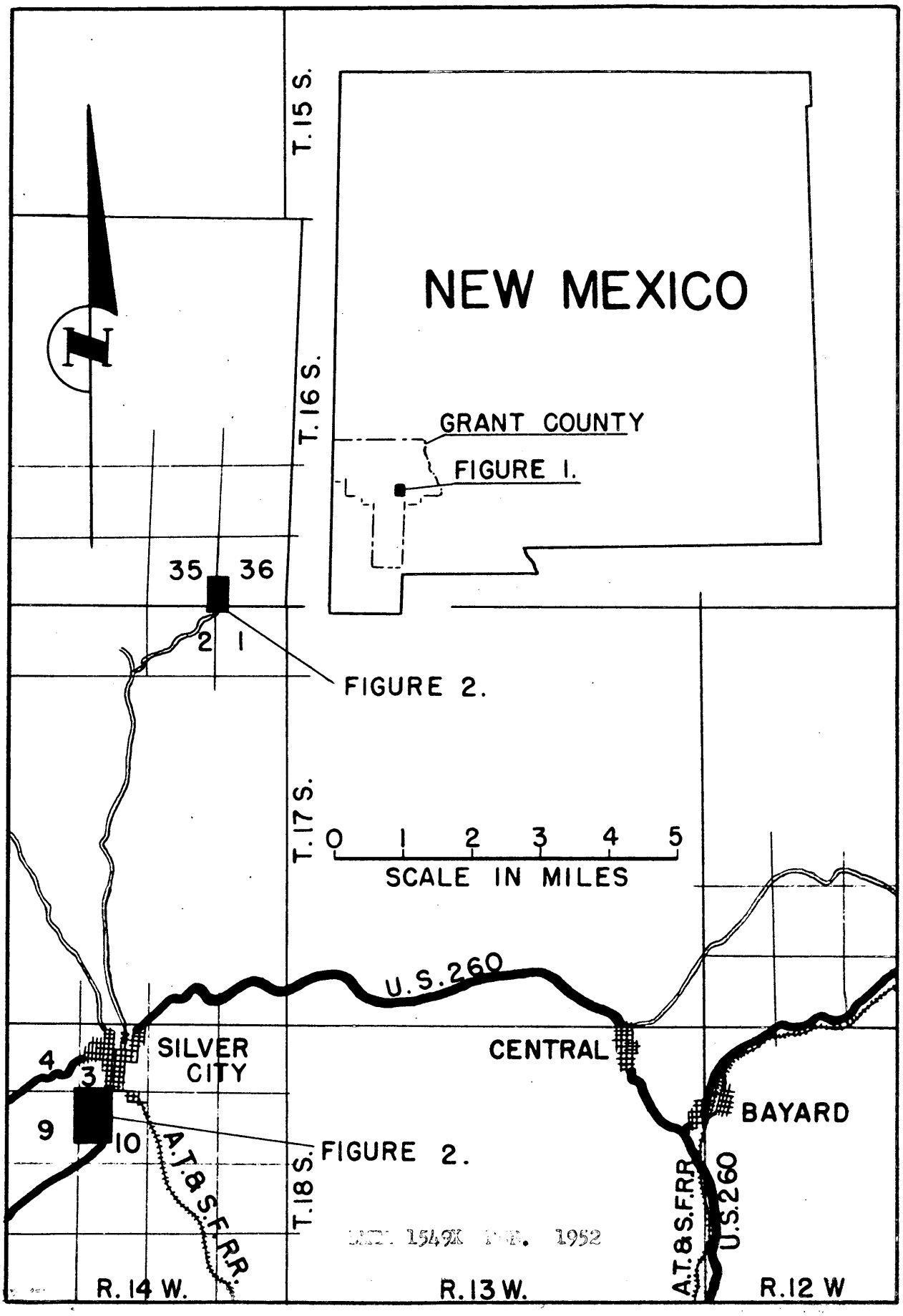

FIGURE 1 LOCATION MAP, [illegible]

PHYSICAL FEATURES AND CLIMATE

The property is on the western slope of the Pinos Altos Mountains. These form a range about 5 miles long in a north-south direction. They are approximately 3 miles wide. The mountains locally are rugged and attain a peak altitude of 8,036 feet above sea level. The property is at an average altitude of about 7,250 feet in an area of moderately rugged terrain with a range in relief of about 400 feet.

The climate is typical of the higher altitudes of southern New Mexico. The temperatures, moderate to cold, range from an estimated 0° F. to 90° F. The estimated annual precipitation of about 20 inches occurs as heavy rainfalls in the summer, and fairly heavy snowfalls during the winter.

There are no permanent streams in the area. The mines make little or no water and there are no nearby wells. All water for the proposed drilling project must be hauled from the domestic supply at Silver City.

Vegetation consists chiefly of ponderosa and pinon pine, juniper, scrub oak and range grasses. The ponderosa pine is not abundant but some of it is suitable for mine timber.

HISTORY AND PRODUCTION

Little is known about the early history of the Houston-Thomas property. It probably was worked for placer gold before 1905, and by that time a little oxidized lead ore had been shipped. About 1918, C. Amory Stevens opened the Stephens adit and shipped some carbonate and sulfide ore. G. P. Goodier produced over 7,000 tons of oxidized

lead ore from the same area during 1922 and 1923. The Empire Zinc Co. drilled several diamond drill holes on the property from 1928 to 1930. During the following few years, W. W. Slick is said to have operated the Slick gold mine.

B. O. Shepherd acquired the property in 1943 and started mining zinc-lead ores. Andrew B. Stewart purchased the property late in 1945 and worked a small gold-bearing vein for a few months.

Stewart leased the group of claims to Mathis and Mathis in 1946 and through the lessees, conducted a geophysical survey of the property. During 1946 and 1947, the Bureau of Mines put down 6 diamond-drill holes on the property for a total of 1,824 feet. Two of these holes encountered ore below an anomolous area of the geophysical survey. No ore mineralization was encountered by the other holes.

In 1947, the lessees sank a shaft, the Atlas No. 2, to the deposit found by the Bureau of Mines. Production from the deposit started in May 1947 and has continued to the present. Present pro duction is coming from a nearby deposit that was discovered by underground diamond drilling. During 1951, ore was encountered by 2 diamond-drill holes drilled from the surface at a point a few hundred feet southwest of the producing mine. At present an adit is being driven to intersect this deposit.

Total production from the Atlas No. 2 mine to January 1952 is 31,460 tons containing 8.43 percent zinc, 2.2 percent lead, 0.2 percent copper, and 2.45 ounces of silver a ton. A summary of production from

the other areas on the property shows a total of 11,031 tons of which 1,018 tons was bismuth-bearing gold ore. Production records show that 2,687 tons of the remaining 10,013 tons of ore contained an average of about 8.0 percent zinc, 2.8 percent lead, 0.4 percent copper, and 4.4 ounces of silver and 0.02 ounce gold per ton.

PROPERTY AND OWNERSHIP

The property is a group of 15 patented lode mining claims in secs. 35 and 36, T. 16 S., R. 14 W., and secs. 1 and 2, T. 17 S., R. 14 W., of the West Pinos Altes mining district, Grant County, N. Mex. The location of a portion of the property that includes the project area is shown on figure 2. It is known as the Houston-Thomas group of claims and is owned by Mrs. A. B. Stewart, of Grant County, N. Mex.

Mrs. J. B. Mathis, Sr., and her son R. W. Mathis, both of Silver City, N. Mex., hold the above property under a lease agreement with the owner. The agreement, dated July 1, 1946, is for a 10-year period and calls for royalty payments of 10 percent of the net smelter returns on all ore produced from the property.

DESCRIPTION OF THE DEPOSITS

Limestone is the host rock for both carbonate and sulfide zinc-lead ores. The deposits of carbonate ores that were formerly worked, occur as gossans, some of which were quite extensive. The gossans probably represent the residium of exposed sulfide ore bodies. The ore minerals of the carbonate ores are smithsonite, cerussite and malachite.

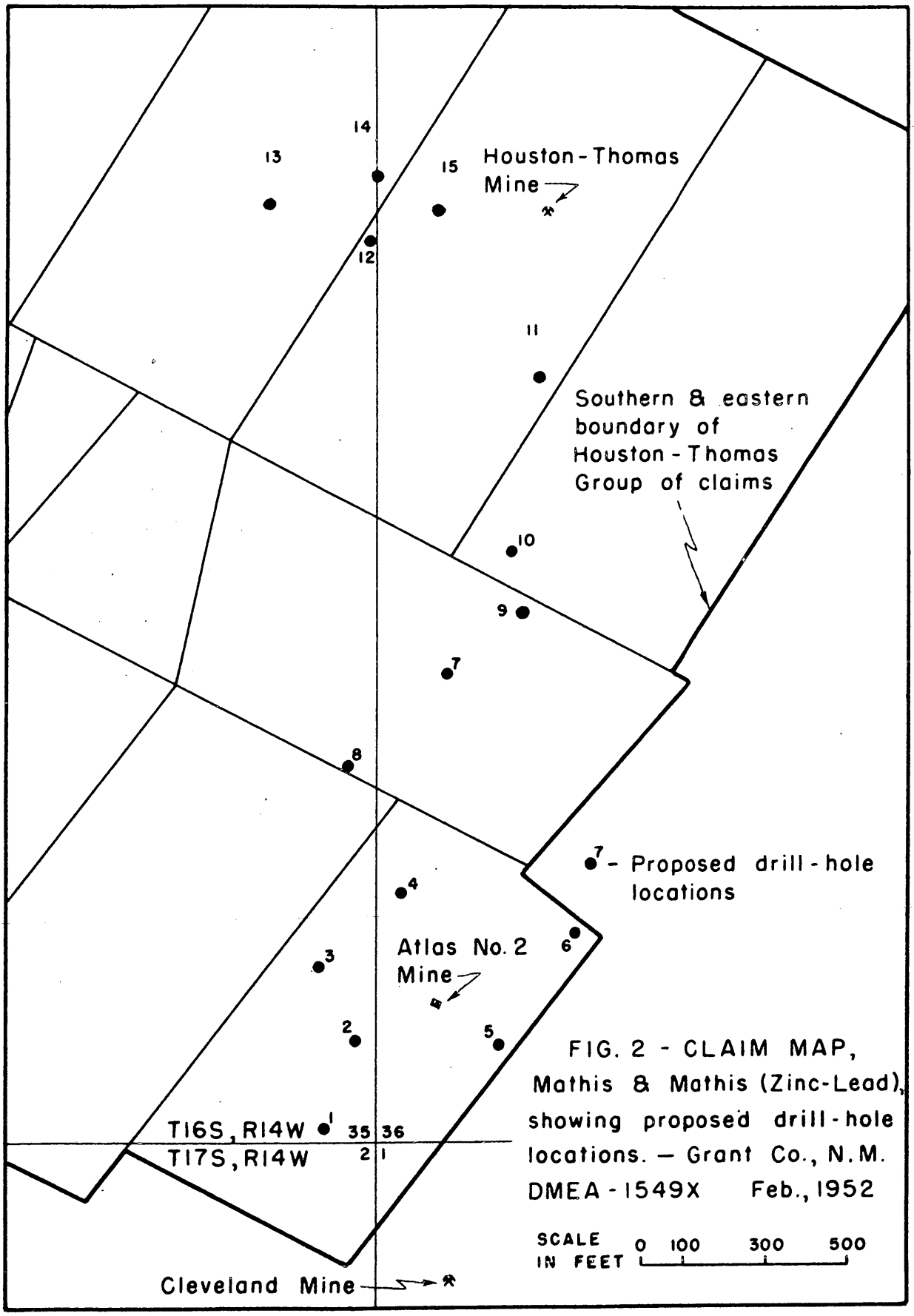

FIG. 2 - CLAIM MAP, Mathis & Mathis (Zinc-Lead), showing proposed drill-hole locations. — Grant Co., N.M.
DMEA-1549X Feb., 1952

The sulfide ore bodies occur usually as irregular, flat-lying, tabular deposits of the replacement type. They are localized along northeasterly-trending fissures, and contacts with igneous rocks. At the Cleveland mine, adjacent to the Houston-Thomas property, the largest stope measured almost 200 feet in length, 50 feet in width, and 15 feet high. The main ore body of the Atlas No. 2 mine, now being operated by the applicant, has maximum dimensions of 230 feet in length, 90 feet in width, and 30 feet in height.

The ore minerals of these sulfide deposits are marmatite, galena and a little chalcopyrite. Silver, probably associated with the galena, also is present.

PRESENT STATUS

Operations

About 300 tons of ore is presently being produced monthly from the small stope near the main deposit. The ore is mined by the open-stope method with small pillars left to support the roof. A complete report of the mining method is described by Walter R. Storms in Bureau of Mines I. C. 7524, Mining Methods and Costs at the Atlas No. 2 Zinc-Lead Mine, West Pinos Altos Mining District, Grant County, N. Mex. At present the ore is hauled by truck to Silver City and then transported by railroad to the mill of the American Smelting and Refining Co. at Deming, N. Mex.

The operations of Mathis and Mathis are supervised by R. W. Mathis. A total of 7 men are employed; a hoistman and 2 miners at the mine;

2 miners driving an adit to the recently discovered deposit; and 2 men on diamond drilling, both from the surface and underground workings.

The measured and indicated reserves of ore presently remaining in the Atlas No. 2 mine have been estimated by the applicant at about 1,500 tons.

Economics of Operation

The average ore produced from the Atlas No. 2 mine, i.e., 8.43 percent zinc, 2.2 percent lead, 0.2 percent copper, and 2.45 ounces of silver a ton, has a present smelter value, before deductions, of $21.02 a ton. After deductions per ton of $4.00 for treatment, $0.48 for freight, $1.16 for trucking, and $1.54 for royalty, the balance due the shipper is about $13.36. Thus, with mining costs at $8.00, ore of average grade would yield an operating profit of about $5.36 a ton. However, recent shipments have contained less than average grade ore and operating profits have dropped to about $3.00 a ton.

PROPOSED EXPLORATION

The proposed exploratory project consists of core-drilling a minimum of 15 holes, ranging in depths from 100 to 300 feet for an estimated total of 5,000 feet. Figure 3 shows the approximate locations of 15 proposed holes, each of which is in an area where structural features or surface indications are favorable for ore

mineralization at depth. These area will not necessarily be drilled in the order that the holes are numbered. The drilling program in each area will be influenced by the results obtained as drilling progresses. The first hole to be drilled in each area will be put down at or near a location shown on figure 3. Additional drilling in each of the areas will be confined to favorable locations and to the partial delimitation of ore discoveries.

In event the Government participates financially in this project the examining engineers recommend that a statement to the following effect be made a part of the contract:

"Approval of a representative of the Defense Minerals Exploration Administration must be obtained for any drilling of targets other than those designated on figure 3."

ESTIMATED COST OF PROJECT

General

It is estimated that each of 2 diamond drill rigs will average about 10.5 feet of hole daily and that the 5,000 feet of hole can be completed in an estimated 240 working days, or 10 months. Each of the drill rigs will operate one shift daily, 6 days per week. Overtime for work in excess of 40 hours weekly will be at 1½ times the basic rate of pay.

R. W. Mathis proposes to supervise the project on a full-time basis and has agreed that all engineering and bookkeeping work shall be part of his duties. He has offered his services at the rate of $1.85 an hour.

Supervision

1 - Supervisor @ $1.85 an hour.
$96.20 per week or $384.80
per month.

10 months @ $384.80	$3,848.00	
Taxes, 10 percent	384.80	
Total supervision		$4,232.80

Labor

2 - Drillers, each @ $1.85 an hour.
Each at $96.20 per week or a
total of $769.60 per month.

10 months @ $769.60	$7,696.00
Taxes, 10 percent	769.60

2 - Drill helpers, each @ $1.50
an hour.
Each @ $78.00 per week or a
total of $624.00 per month.

10 months @ $624.00	$6,240.00	
Taxes, 10 percent	624.00	
Total labor		$15,329.60

Equipment

All of the equipment for the project will be furnished by the applicant. It includes the following:

1 - Sullivan (JOY) No. 22 H.D. core-drill machine complete with water pump, AX drill rods, core barrels (1-rigid and 1-series D), tripod, sheave wheel, rod safety clamp, water swivel, water and sludge tank, hoses and tools $5,657.00

1 - Sullivan (Joy) No. 22 standard core-drill machine complete with water pump, AX drill rods, 5-foot rigid core barrel, tripod, sheave wheel, rod safety clamp, water swivel, water and sludge tanks, hoses and tools 3,903.00

1 - Dodge power-wagon truck with 1,000 gallon water tank	$3,000.00
Total value of equipment	$12,600.00

The allowance for depreciation of equipment with total depreciation at 5 years, would be $210.00 monthly or $2,100 for estimated life of project (10 months).

Supplies and Materials

Diamond bit cost for 5,000 feet of drilling @ $1.00 a foot	$5,000.00
Gasoline and lubricants	700.00
Repair parts for equipment	600.00
Total supplies and materials	$6,300.00

Other

Water for drilling, 250 loads of 1,000 gallons each @ $1.00	$ 250.00
Assaying	150.00
Total for other costs	$ 400.00

Recapitulation of Costs

Supervision	$ 4,232.80
Labor	15,329.60
Equipment	2,100.00
Supplies and materials	6,300.00
Other	400.00
Total estimated cost	$28,362.40

PROPOSED FINANCING

R. W. Mathis told the examining engineers that Mathis and Mathis are prepared to finance the project in accordance with regulations governing Governmental aid on exploratory projects. On this basis, the Government's share of the estimated cost of the project would be 50 percent of $28,362.40 or $14,181.20.

CONCLUSIONS

1. Core-drilling is the most practicable method of exploring for ore deposits on this property. Good core recovery can be expected.

2. R. W. Mathis can be expected to carry out the proposed work in a competent manner. He understands the controls for ore deposition and has demonstrated his ability to discover sulfide ore bodies in the project area.

3. The chances of making additional ore discoveries in the project area are favorable. Furthermore it is reasonable to expect the ore will be of a grade similar to that now being produced.

4. In event a deposit of the magnitude of the Atlas No. 2 is discovered, it is reasonable to expect that it can be exploited by the applicant at a profit and will result in repayment of the Governmental loan.

RECOMMENDATIONS

It is recommended that the proposed exploratory project be carried out and that 50 percent of its estimated cost of $28,362.40, (or $14,181.20) be financed by the Government.

C
O
P
Y

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

October 23, 1953

Mr. Thomas H. Brading
DMEA Auditor
224 New Customhouse Building
Denver 2, Colorado

Dear Mr. Brading:

Receipt is acknowledged of your letter of October 19, 1951 in reference to certain completed contracts, and also your letter of the same date transmitting copies of your Audit Report and Certificate on Idm-E16, DMA-1094, Naildriver Mining Company.

With reference to Idm-E260, DMEA-1931, White Canyon Mining Company and Idm-E458, DMEA-1549, Mathis & Mathis, it appears that the wrong form was used by the Executive Officer in closing these contracts. The Notice of Termination **** Before Completion of Work infers that the work was started and it has been our procedure to withhold release of the obligated funds and the closing of the Operator's account until receipt of the final Audit Certificate or Report of Review.

In these two cases, however, it appears from your letter that no work was done and no costs were incurred on these projects, with the result that no Audit Certificates or Reports of Review are required. Accordingly, we will use your letter as the basis for releasing the obligated funds and closing the accounts the same as if the Rescission of Exploration Project Contract form had been used.

Your Audit Report and Certificate on Idm-E16, DMA-1094, Naildriver Mining Company is acceptable and may be distributed. Also, please advise Mr. Finch that his Report and Certificate on Idm-E100, DMA-1099, United Park City Mines also has been accepted and distribution may be effected.

Sincerely yours,

/s D. D. Talbert

D. D. Talbert, Acting Chief
Contract Administration
and Audit Division

EDTalbert/wb
October 23, 1953

Copy to: Docket -
Admr. Reading File
Mr. Chambers

C
O
P
Y

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

224 New Customhouse
Denver 2, Colorado

October 19, 1953

Mr. Jay L. Chambers, Chief
Contract Adm. & Audit Div.
Defense Minerals Exploration Adm.
Interiro Building
Denver 2, Colorado

Dear Mr. Chambers:

The following is the status of the "Be Whiskered" completed exploration contracts in Region IV.

Idm-E260 DMEA Docket 1931-White Canyon Mining Co.
Idm-E458 DMEA Docket 1549-Mathis and Mathis.

No work was started on either of the above contracts, consequently no disbursements were made. Inasmuch as you have probably had similar cases to these in other regions, you, no doubt, have developed a form of report to handle them. Please advise me the form of report to use in these two instances, and I will be happy to comply with your instructions.

Idm-E71-DMEA 789-Erickson and Baer-One of the examining engineers contacted Mr. Baer at Telluride about sixty days ago, and he promised immediate action on the disposition of the equipment under this contract. An effort will be made to see Mr. Baer in the immediate future, and definite steps taken to close this deal.

Idm-E124-DMEA 1318-Kenneth L. Porter-Attached are copies of letters regarding this contract:

(1) Letter dated September 21, 1953-Frank E. Johnson, Acting Administrator to Mr. Porter
(2) Memo regarding inspection of deposits under subject contract, and statement regarding certain materials in storage.

Sincerely yours,

/s/ T. H. Brading

DMEA Auditor

Enclosures

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

October 13, 1953

Mr. Thomas H. Brading
DMEA Auditor
224 New Customhouse Building
Denver 2, Colorado

Dear Mr. Brading:

In reviewing the terminated and completed exploration projects in Region IV, it appears there are several "be-whiskered" ones for which neither Reports of Review nor Audit Reports have been issued. These are:

Idm-E71	DMEA -789	Erickson & Baer
" E260	" 1931	White Canyon Mining Co.
" E458	" 1549	Mathis and Mathis

The Erickson & Baer contract apparently was completed on August 18, 1951 except for the disposition of equipment; the White Canyon Mining Co. contract was terminated before completion of the work by notice dated March 2, 1953; and the Mathis & Mathis contract was terminated before completion of the work by notice dated March 6, 1953. Every effort should be made to close these accounts by final audit or review, so that the obligated funds may be released.

Please advise the present audit status of these contracts.

There is one other "old" termination in Region IV, that is the Kenneth L. Porter contract, Idm-E124, DMEA-1318, which was the subject of your letter of August 28, 1953. I am planning on sending an auditor from the Washington office to New York for this audit, but, in view of the small amount involved, a trip for this purpose alone is not justified. Therefore I am delaying the proposed audit until late November or December when we expect to perform a fiew audits in New England. Please, however, keep me currently informed on the progress of the property disposition under this contract.

Sincerely yours,

/s/ J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division.

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

224 New Customhouse
Denver 2, Colorado

March 9, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 12 1953

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, Field Team, Region IV

Subject: Termination of Contract Idm-E458, Docket No. DMA 1549X
Mathis and Mathis

Enclosed are three copies of Termination of Exploration Project Contract Before Completion of Work between the Government and Mathis and Mathis, Docket No. 1549X, Contract No. Idm-E458, dated October 23, 1952.

W. H. King
W. H. King

Enclosures

NOTICE OF TERMINATION OF EXPLORATION PROJECT CONTRACT, UNDER THE TERMS OF THE CONTRACT, BEFORE THE COMPLETION OF THE WORK

DIVISION COPY

To: Mathis and Mathis
P. O. Box 452
Silver City, New Mexico

Operator under Exploration Project
Contract Idm-E458, Docket No.
DMA 1549X, dated October 23, 1952

The United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, under the terms of the above-mentioned contract, hereby terminates the contract on the following grounds:

In the opinion of the Government, you have failed to prosecute operations pursuant to the terms of the contract.

Upon the receipt of this notice, as provided in said contract, you are required to dispose of any remaining materials, supplies, facilities, buildings, fixtures, equipment, or other items, in which the Government has an interest, for the joint account of yourself and the Government; and to render to the Government a full and final accounting of your operations under the contract and of your expenditures of money on account thereof.

Any work prosecuted or costs incurred by you after the receipt of this notice shall be for your sole account, except for (a) such necessary and reasonable costs and expenses as may be incurred in preserving and disposing of any facilities, buildings, fixtures, equipment, or other items, to the cost of which the Government has contributed and in which the Government has an equity, and (b) the costs of any reports, accounts, and winding-up and settlement actions provided for in the contract.

Dated this 6th day of March, 1953.

UNITED STATES OF AMERICA

By W. H. King
W. H. King
Executive Officer, DMEA
Region IV

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 15 1952

224 New Customhouse
Denver 2, Colorado

December 10, 1952

REGISTERED

Memorandum

To: C. O. Mittenderf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Contract Idm-E458, Docket DMEA 1549X, Mathis and Mathis

Enclosed are the original and two copies of Contract Idm-E458. Copies of this contract have been given to the operator, the Fiscal Officer, Region IV, and a copy has been retained for our files.

W. H. King
W. H. King

Enclosures

MF-200 (A)
(February 1952)

DOCKET NO. DMEA 1549X

COMMODITY Zinc, Lead

Idm-E458

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 15 1952

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]
(Short Form)

IT IS AGREED this 23rd day of October, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] a partnership consisting of R. W. Mathis and Lettie Mae Mathis, doing business as Mathis and Mathis, P. O. Box 452, Silver City, New Mexico

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of New Mexico, County of Grant, described as follows:[3] The following patented mining claims: Lafayette, Manilla, Alpha, Omega, Florida, Caribou, Atlas, all No. 1211; Bauxite No. 1497; Calcite, Quartzite, Rocker, all No. 1409; Maverick, No. 1580; Opher, Tunnelsite, No. 1490; Klondyke, No. 1583

the Operator represents and undertakes:[4]

(*a*) ~~Operator is a lessee, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached:~~

~~Landlord's Subordination Agreement~~

(*b*) That the Operator is a lessee, in possession and entitled to possession, and the Owner's Consent to Lien is attached.

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within sixty (60) days from the date of this contract shall commence work on a project of exploration for[5] Zinc, Lead

in or upon the described land; and shall bring the project to completion within a period of twelve (12) months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay fifty (50) percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $ 14,200.00 the agreed, estimated total cost of the project in which [illegible] final report and final accounting [illegible]

U. S. GOVERNMENT PRINTING OFFICE 16—68329-1

[CORPORATE SEAL]

this contract on behalf of the Operator, was then
that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the
scope of its corporate powers.
of said corporation;

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

(For instance: The percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* A certified drill log must accompany each Monthly Progress Report. Reimbursement will be made only for diamond drill holes completed to the satisfaction of the DMEA Representative. Drill cores must be properly stored in acceptable core boxes. Cores must be split and one-half retained for the use of the DMEA.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

MATHIS AND MATHIS
(Operator)

By R. W. Mathis

By Lettie Mae Mathis

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

I, , certify that I am the secretary of the corporation named as Operator herein; that , who signed

MF-202

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D. C.

Nov 13 1 33 PM '51

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the county of Grant, State of New Mexico, described in a certain Exploration Project Contract dated _____, 195__, between Mathis and Mathis, the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated July 1, 1946, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 31st day of October, 1951

Louise B. Stewart
Mrs. Louise B. Stewart

U. S. GOVERNMENT PRINTING OFFICE 940768

John D. Finch
John D. Finch

Daniel F. Nolting
Daniel F. Nolting

EXHIBIT A

Description of the Work

The project consists of diamond core drilling approximately 15 holes, ranging in depth from 100 to approximately 350 feet for an estimated total of approximately 5,000 feet. The attached map shows the approximate locations of 15 proposed holes. The locations and directions of any of these holes may be changed if the proposed locations and directions are acceptable to the DMEA representative.

Estimated Costs of Project

5,000 feet of diamond drilling @ $5.68 per foot	$28,400.00
Cost of Project	$28,400.00
Government's participation @ 50%	$14,200.00

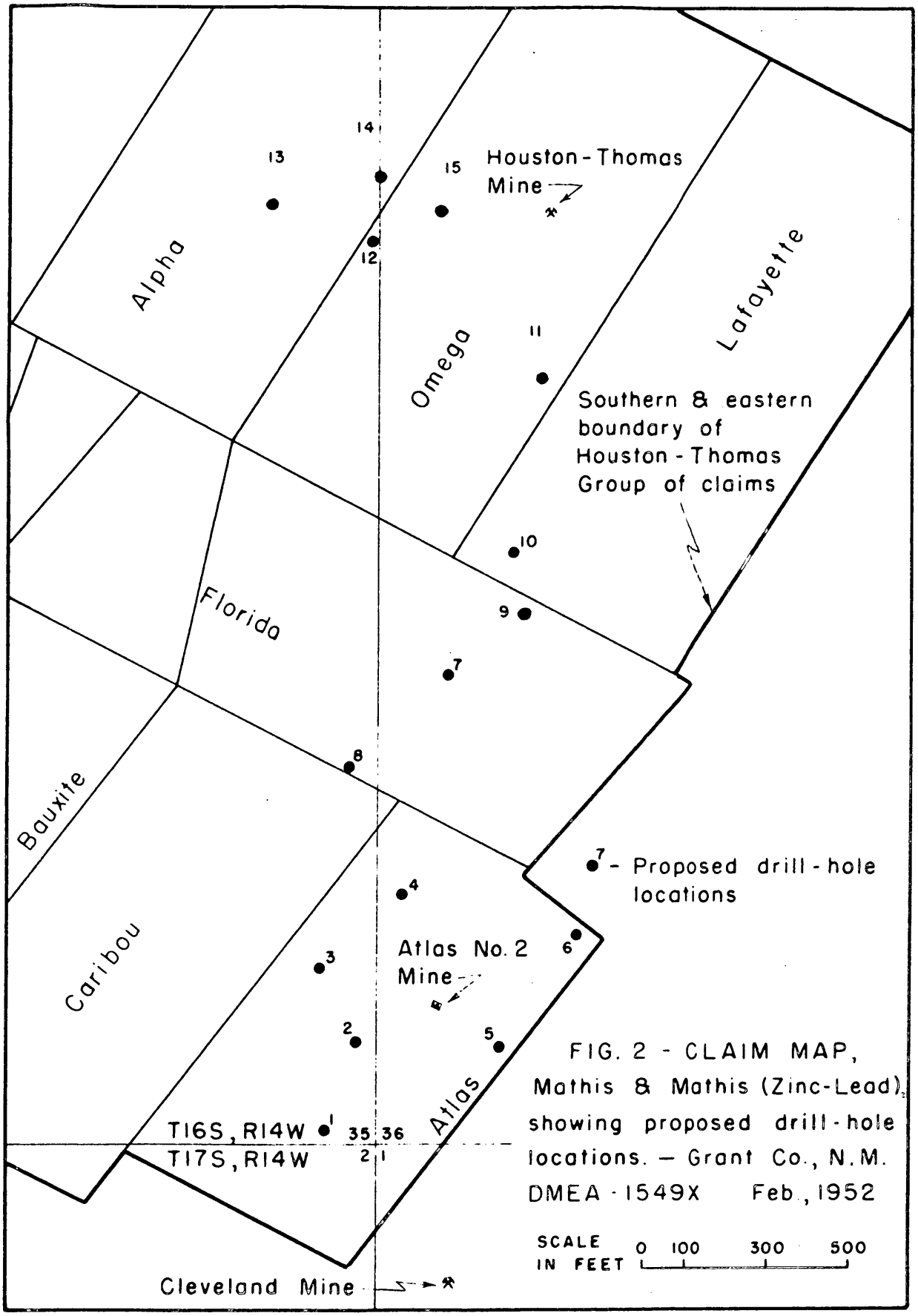

FIG. 2 - CLAIM MAP, Mathis & Mathis (Zinc-Lead), showing proposed drill-hole locations. — Grant Co., N.M.
DMEA-1549X Feb., 1952

UNITED STATES 140
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

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

Subject: Docket No. DMA-1549X
Mathis and Mathis
Silver City, New Mexico

Dear Mr. King:

As requested in your letter of July 15, 1952, concerning the subject application, we are enclosing the following documents:

Original and five copies of the deed dated May 5, 1947, from B. O. Shepherd and Vera S. Shepherd to Andrew B. Stewart, covering certain patented lode mining claims in Pinos Altos Mining District, Grant County, New Mexico.

Original and six copies of the lease dated July 1, 1946, between Andrew B. Stewart and J. B. Mathis and R. W. Mathis, covering the aforesaid claims.

Six copies of "Landlord's Subordination Agreement," dated October 31, 1951, and signed by Louise B. Stewart, John D. Finch, and Daniel P. Nolting.

Although the Legal Department prefers the use of Form MF-203, "Owner's Consent to Lien," since the new contract is adapted to that form, they will approve the use of Form MF-202, "Landlord's Subordination Agreement," if the forms are already signed (as in this case) or if the owner refuses to sign Form MF-203.

In using Form MF-202, "Landlord's Subordination Agreement," delete "Owner's Consent to Lien" and substitute "Landlord's Subordination Agreement" in Article 2(b) in Exploration Project Contract Form MF-200.

We believe that with the enclosures you will be in a position to complete the proposed contract.

Sincerely yours,

(signed) FRANK E. JOHNSON

Chairman, Operating Committee

Enclosures

Approved:

J. H. Hedges

Member, Bureau of Mines

T. P. Thayer

Member, Geological Survey

HFKeller/AEKane/em
7/29/52
Copy to: Mails and Files
Adm. Reading File
Operating Comm.
H. F. Keller
Mr. McKnight
Mr. Bishop
J. L. Hofflund
A. E. Kane
chron.
pending

110

JAN 9 1952

Mr. R. W. Mathis
Mathis and Mathis
P. O. Box 452
Silver City, New Mexico

Re: Docket No. DMA-15197
Lead, Zinc

Dear Mr. Mathis:

Your application for assistance in exploring your property in Grant County, New Mexico, Docket No. DMA-15197, has been reviewed by the Base Metals Division of the Defense Minerals Exploration Administration and has been referred to Mr. J. H. East, Jr., Executive Officer, DMEA Field Team, Region IV, 224 New Customhouse Building, Denver 2, Colorado, for a field examination.

The Regional office will contact you at the earliest opportunity in regard to your project.

Sincerely yours,

C. O. Mittendorf

Acting Administrator
Defense Minerals Exploration
Administration

COMittendorf/hb

Copy to: Adm. Reading File
Mr. Mittendorf
Mails & Files
Mr. East, Region IV
Mr. Moulds
Mr. Bishop
Mr. Mote
Docket

JAN 9 1952

Mr. J. H. East, Jr.
Executive Officer, Region IV
DMEA Field Team
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA 1549X
Natalie and Nathis
Silver City, New Mexico

Dear Mr. East:

We are forwarding, herewith, the following material:

1 Copy - Form MR-100 with attached booklet "Gravity Prospecting for Lead and Zinc, New Mexico", "Geologic Map Houston-Thomas Prospect, Silver City, New Mexico", Plan of Atlas MC Mine, and two typed pages relative to MR-100.

1 Copy - Form MR-103 with 4 typed pages relative to MR-103.

1 Copy - Letter from R. W. Natalie dated December 12, 1951 with attached revised page 3 of Form MR-100, "The Requirements and Data".

1 Copy - Review of Application for Exploration Assistance.

The subordination agreements from the owners referred to in letter of December 12, 1951 have been supplied in satisfactory form to this office.

In that this application was filed in haste and delayed by subordination requirements and information as to ownership, please review the project to the extent necessary according to attached memorandum as soon as conveniently possible and return the enclosed material with your recommendation.

Sincerely yours,

~~C. O. Mittendorf~~
(signed) FRANK E. JOHNSON
Chairman, Operating Committee
Defense Minerals Exploration
Administration

Enclosures
MR-100 Dr

DEMoulds/mch 1/5/52
cc to: Adm. R. Miles
Mails & Files
Mr. Mittendorf
Mr. East, Reg. IV
Mr. Moulds
Mr. Bishop
Mr. Hoto
Docket

Member, Bureau of Mines

Member, Geological Survey