DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 1933

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EXPLORATION LOAN

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Routing Slip

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To:	Coordinating Comm.	Date	8-15-51
To:	Reports + Records	Date	AUG 17 1951
To:	Mails + Files	Date	5-21-52
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STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Ernest Wm. Ellis, DMEA Member, Uranium Commodity Committee

DATE: June 13, 1952

FROM : Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

SUBJECT: Field team report, DMEA Docket 1933, Uranium, Kust, G., and Sears, M. M., lease in School Sec. 16, T. 28 S., R. 23 E., Carie Springs area, San Juan Co., Utah.

On the basis of information included in the report identified above I concur with the field team's conclusions and recommendation that a loan of $18,000 to explore for uranium on the applicant's property be denied.

Arthur P. Butler, Jr.

Arthur P. Butler, Jr.

Attachment

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 19 1952

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

Butler
Levinsky

Ernest Wm. Ellis, DMEA Member, Uranium Commodity Committee
Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee
Field team report, DMEA Docket 1933, Uranium, Kust, G., and Sears, M. M., lease in School Sec. 16, T. 28 S., R. 23 E., Cane Springs area, San Juan Co., Utah.

June 13, 1952

On the basis of information included in the report identified above I concur with the field team's conclusions and recommendation that a loan of $18,000 to explore for uranium on the applicant's property be denied.

Arthur P. Butler, Jr.

Copy to: E. Wm. Ellis

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

224 New Customhouse
Denver 2, Colorado

May 16, 1952

Memorandum

To: Acting Administrator, Defense Minerals Exploration Administration - Attention: Code 210

From: Field Team, Region IV

Subject: Final Report, DMA Docket 1933, (Uranium) Glen Rust and N. M. Sears, Cane Springs Area, San Juan County, Utah

Enclosed are the original and three copies of the final report on DMA-1933, the original and one copy of DMA Form 3b and a copy of the letter of denial to the applicant.

Removed in R & R. 5-21.

J. H. East, Jr.

A. H. Koschmann

Enclosures

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAY 21 1952

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

224 New Customhouse
Denver 2, Colorado

May 16, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 21 1952

Mr. Glen Rust
Mr. M. M. Sears
Cortez, Colorado

Dear Sirs:

Reference is made to your application for Government aid on your uranium property located in the Cane Springs Area, DMA-1933, in the amount of $18,000.

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

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

Very truly yours,

J. H. East, Jr.

J. H. East, Jr.
Executive Officer
Field Team, Region IV

HMC:oc
cc: Acting Administrator (Attn. Code 210)
SRWilson
Subject
Chron.
Koschmann (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
200 New Customhouse
Denver 2, Colorado

May 9, 1952

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 1933, Glen Rust and M. M. Sears, uranium property, Cane Springs Area, San Juan County, Utah

Enclosed are eleven copies of the geologic report by J. W. Hasler and B. J. Sharp of the U. S. Geological Survey covering the above docket. It has been recommended that the loan be denied.

The brochure is enclosed.

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

Enclosures (12)

Reviewed by
DMEA OPERATING COMMITTEE
5-26-52
(date)

Room 206, 222 So. West Temple
Salt Lake City 1, Utah
6 May 1952

Memorandum

To: A. H. Koschmann, Field Team, Region IV

From: Ralph J. Roberts

Subject: Docket DMA 1933, Glen Rust and M. M. Sears, uranium property, Cane Springs Area, San Juan Co., Utah.

Enclosed are eleven copies of a geological report of the Glen Rust and M. M. Sears uranium property, Cane Springs area, San Juan County, Utah, DMA Docket 1933.

In response to a request from the Field Team, Region IV, J. W. Hasler and B. J. Sharp visited the property March 26-27, 1952 to determine the merit of the proposed program.

The applicants have produced approximately 100 tons of uranium-vanadium ore averaging 0.31 percent U_3O_8 and 2.25 percent V_2O_5. Uranium bearing rocks in the Cane Springs area, San Juan County, Utah are found in the upper part of the Salt Wash member of the Morrison formation of Jurassic age. The uranium occurs in extremely erratic sandstone lenses, and as replacement bodies in silicified logs and carboniferous material. Only ores that contain visible uranium minerals or were highly radioactive have been explored by the applicants. All easily accessible ore has been mined.

The possibility of finding commercial bodies of uranium ore by crosscutting or diamond drilling is not good because of the extremely erratic distribution of the deposits. The cost of discovery of ore bodies is likely to be more than the value of the ore. It is therefore recommended that the application for a loan of $18,000.00 be denied.

I concur with the conclusions and recommendations of the examining geologists that the possibility of finding uranium ore bodies of commercial grade on the Rust and Sears property is not good, and that the loan be denied.

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

Docket DMA 1933, Glen Rust and M. M. Sears, uranium property, Cane Springs Area, San Juan Co., Utah

J. W. Hasler and B. J. Sharp, Geologists
U. S. Geological Survey

May 5, 1952

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ILLUSTRATIONS

Figure 1. Index map of Utah.

Figure 2. Map of Glen Rust and M. M. Sears uranium property showing claims and proposed exploration work.

Docket DMA 1933, Glen Rust and M. M. Sears, uranium property

Cane Springs Area, San Juan Co., Utah

INTRODUCTION

Glen Rust and M. M. Sears of Cortez, Colorado have made an application to the Defense Minerals Exploration Administration for a loan of $18,000.00 to explore for uranium on their property.

In a response to a request from the Field Team, Region IV, dated June 18, 1952, J. W. Hasler and B. J. Sharp of the U. S. Geological Survey visited the property March 26-27, 1952, to determine the merit of the proposed exploration program.

Location and Accessibility

The Glen Rust and M. M. Sears uranium property is located in the Cane Springs area, San Juan County, Utah (fig. 1), in the W 1/2 of the NW 1/4 of School Sec. 16, T. 28 S., R. 23 E., S.L.B. and M. The mine can be reached by driving 22 miles south from Moab, Utah on U. S. Highway No. 160, thence 7 miles northeast on a poor dirt road.

History and Production

The operators, Mr. Glen Rust and Mr. M. M. Sears, leased the W 1/2, N 1/4 of School Sec. 16, T. 28 S., R. 23 E., S.L.B. and M., Cane Springs area, San Juan Co., Utah in 1951 to explore for uranium and vanadium ores. They began production of vanadium and uranium ore from the property in June 1951. Ore sold from June through November is reported to total about 45 tons assaying 0.04 to 1.98 percent U_3O_8 and from 0.96 to 4.98 percent percent V_2O_5. This ore has an average gross value of about $35.00 a ton.

GEOLOGY

The area is underlain by sedimentary rocks of Jurassic and Cretaceous age. The uranium-vanadium deposits are in sandstone beds in the lower part of the Morrison formation of Jurassic age.

In the Cane Springs area southeast of Moab, Utah, the Morrison formation consists of two members; the basal Salt Wash sandstone, which lies with apparent conformity upon the Summerville formation, and the Brushy Basin shale member, which lies conformably upon the Salt Wash sandstone member.

The mine workings and prospects are mainly in the Salt Wash member as stated by Baker [1].

---

[1] Baker, A. A., Geology and Oil Possibilities of the Moab District, Grand and San Juan Counties, Utah: U. S. Geol. Survey Bull. 841, pp. 52-53, 1933.

"This member consists of white conglomeratic sandstone interbedded with red sandy mudstones and red shale. The white sandstones are medium to coarse grained, cross-bedded in part, irregularly bedded, and composed of rounded quartz grains cemented with calcium carbonate. The pebbles in the conglomerate zone are varicolored chert. In places silicified logs are embedded in the massive sandstones. The sandstones are locally impregnated with vanadium minerals and the yellow uranium mineral carnotite.

"The upper part of the Morrison formation is largely shale variegated in red and greenish-gray tones. Interbedded with the shale and subordinate in amount are gray silicified sandstone and conglomerate. The conglomerate consists of varicolored chert pebbles in a matrix of silicified white sandstone. The beds in the mine area strike northwest and dip gently to the southeast."

ORE DEPOSITS

The uranium in the Moab area and the Cane Springs district is localized in sandstone lenses, and in replaced tree trunks in the Salt Wash member of the Morrison formation of Jurassic age. The chief ore minerals of the productive mines are carnotite, vanoxite, and roscoelite.

The principal uranium ore bearing unit in the Cane Springs district is in the upper part of the Salt Wash member of the Morrison formation. The ore occurs in sandstone lenses and northwestward trending rolls and as replacement of silicified logs and carbonaceous material.

The ore bodies at the Rust and Sears property are extremely erratically distributed and form irregularly tabular masses that lie essentially parallel to the sandstone beds. The uranium ore bodies at the Rust and Sears property have no particular trend. None of the northwestward trending rolls which are productive in nearby areas in the Salt Wash member of the Morrison formation were at Rust and Sears property.

ORE RESERVES

Production from the Rust and Sears property has come from sandstone lenses as much as 18 inches thick, from carbonaceous material, and from silicified logs that have been replaced by uranium and vanadium minerals. The ore-bearing sandstone lenses, carbonaceous material, and silicified logs are erratically distributed throughout the Salt Wash member and consequently it is difficult to predict where they may be found. It is therefore impossible to calculate the ore reserves that may be present on the property. To date, the applicant has mined about 100 tons from about 150 feet of workings.

If it is assumed that ore bodies of comparable size and trend may be found in the remaining area, 200 tons may be available in the blocks shown in figure 2.

Only areas that contain visible uranium minerals or were highly radioactive have been explored by the applicants. All the easily accessible ore has been mined. Future operations will be largely underground and will be much more costly than in the past.

PROPOSED EXPLORATION

The applicant has proposed to crosscut 400 feet to test for possible uranium bearing sandstone lenses, silicified logs or carbonaceous material, and to diamond core drill three separate areas shown in figure 2.

The possibility of finding commercial bodies of uranium ore by crosscutting or drilling in the area shown in figure 2 is not good because of the extremely erratic distribution of the deposits. The cost of the discovery of ore bodies is likely to be more than the value of the ore.

The Atomic Energy Commission does not anticipate the discovery of commercial ore in the area, but is interested in the possibilities for discovering large tonnages of submarginal ore. The geologists of the Atomic Energy Commission stated that they might do some drilling on the Rust and Sears property to test the trend and grade of ore bodies, but recommended that it would not be advisable for the DMEA to enter into a contract with the applicant. The applicant should not be informed that the Atomic Energy Commission might drill the property, as specific plans are still tentative.

SUMMARY AND CONCLUSIONS

In response to a request from the Field Team, Region IV, dated June 18, 1952, J. W. Hasler and B. J. Sharp of the U. S. Geological Survey visited the Glen Rust and M. M. Sears uranium property, Cane Springs area, San Juan County, Utah, with reference to a Defense Minerals Exploration Administration application for the exploration of uranium.

The Rust and Sears mine area is underlain by sedimentary rocks of Jurassic and Cretaceous age. The uranium-vanadium deposits are in sandstone beds in the lower part of the Morrison formation of Jurassic age. The uranium-vanadium deposits occur in sandstone lenses, silicified logs, and carbonaceous material which are erratically distributed throughout the rocks.

The Rust and Sears property has produced about 100 tons of uranium-vanadium ore averaging 0.31 percent U_3O_8 and 2.25 percent V_2O_5. If it is assumed that ore bodies of comparable size and grade may be found in the remaining area, 200 tons, valued at about $7,000, may be available.

All easily accessible ore has been mined out, and future operations will be largely underground which will prove more costly than in the past. Because of the extremely erratic distribution of the ore bodies, the cost of the discovery of additional ore bodies is likely to be more than the value of the ore. It is therefore concluded that the possibility of finding uranium ore reserves of commercial grade on the Rust and Sears property in any quantity, at a reasonable cost, is not good. It is therefore recommended that the application for a loan of $18,000 be denied.

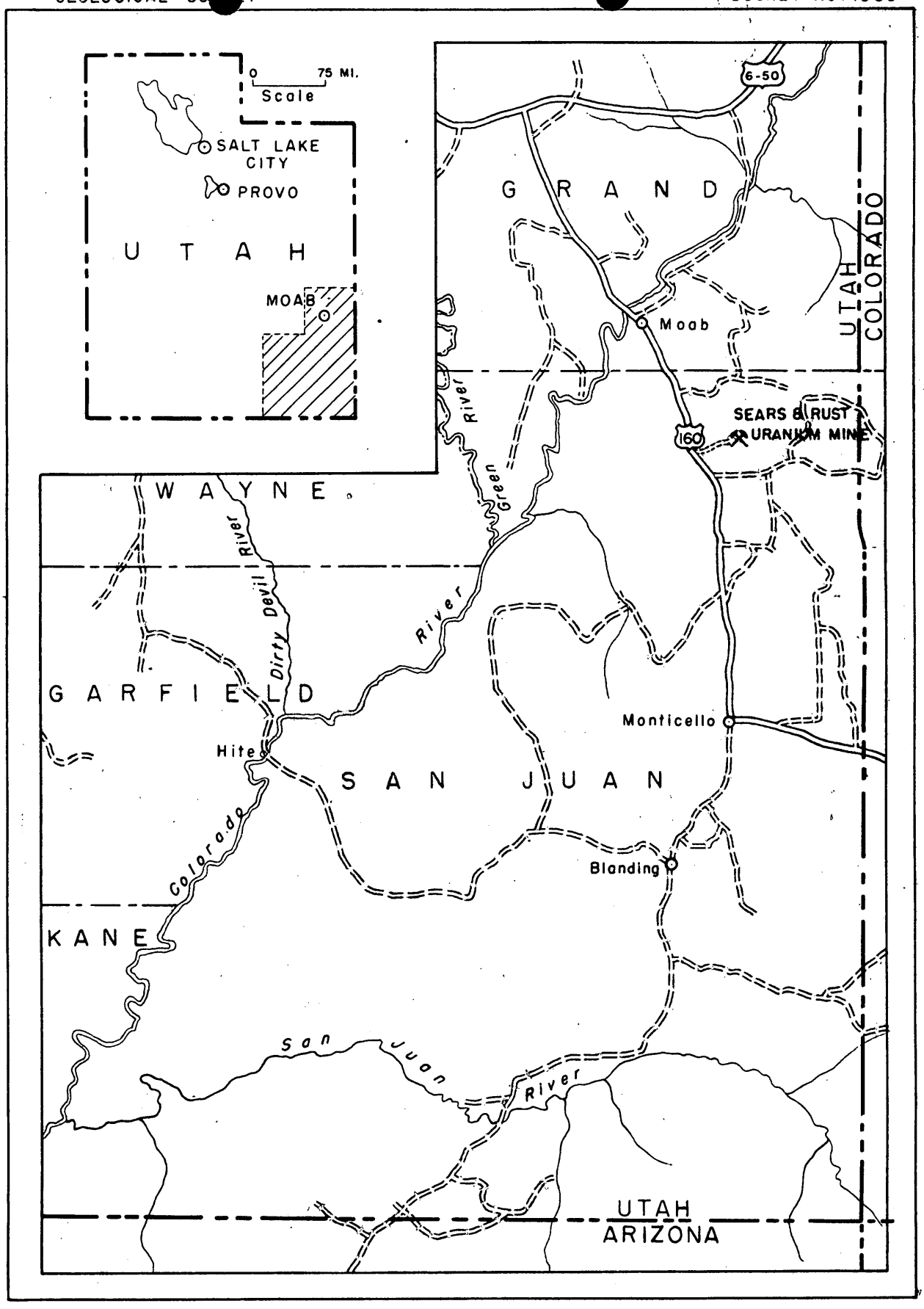

FIG. 1 INDEX MAP OF UTAH

0 5 10 15 20 MILES
Scale

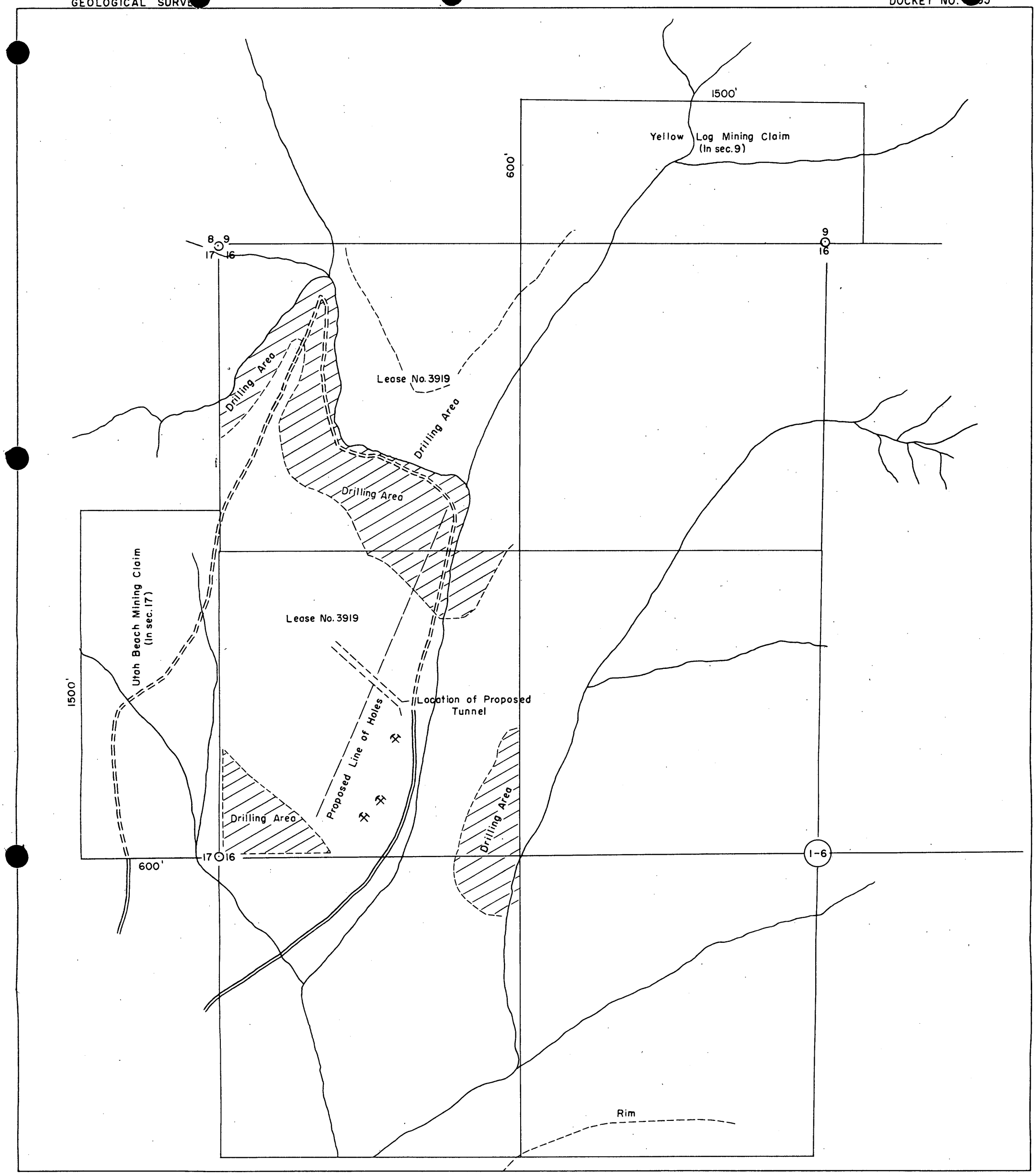

FIG. 2

RUST AND SEARS (URANIUM) RROPERTY

MOAB MINING DISTRICT

SAN JUAN COUNTY, UTAH

0 400 800 FEET
Scale

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

224 New Customhouse
Denver 2, Colorado

May 16, 1952

Memorandum

To: Acting Administrator, Defense Minerals Exploration Administration - Attention: Code 210

From: Field Team, Region IV

Subject: Final Report, DMA Docket 1933, (Uranium) Glen Rust and N. M. Sears, Cane Springs Area, San Juan County, Utah

Enclosed are the original and three copies of the final report on DMA-1933, the original and one copy of DMA Form 3b and a copy of the letter of denial to the applicant.

J. H. East, Jr.

A. H. Koschmann

Enclosures

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAY 21 1952

COPY

224 New Customhouse
Denver 2, Colorado

May 16, 1952

Mr. Glen Rust
Mr. M. M. Sears
Cortez, Colorado

Dear Sirs:

Reference is made to your application for Government aid on your uranium property located in the Cane Springs Area, DMA-1933, in the amount of $18,000.

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

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

Very truly yours,

(Signed) J. H. East, Jr.
J. H. East, Jr.
Executive Officer
Field Team, Region IV

HMC:oc
cc: Acting Administrator (Attn. Code 210)
SRWilson
Subject
Chron.
Koschmann (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
[illegible] New Customhouse
Denver 2, Colorado

May 9, 1952

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 1933, Glen Rust and [illegible] Sears, uranium property, Cane Springs Area, San Juan County, Utah

Enclosed are eleven copies of the geologic report by J. W. Hasler and R. J. Sharp of the U. S. Geological Survey covering the above docket. It has been recommended that the loan be denied.

The treasure is unclaimed.

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

Enclosures (12)

Reviewed by
DMEA OPERATING COMMITTEE
5-26-52
(date)

Room 208, 222 So. West Temple
Salt Lake City 1, Utah
6 May 1952

Memorandum

To: A. H. Koschmann, Field Team, Region IV

From: Ralph J. Roberts

Subject: Docket DMA 1933, Glen Rust and M. M. Sears, uranium property, Cane Springs Area, San Juan Co., Utah.

Enclosed are eleven copies of a geological report of the Glen Rust and M. M. Sears uranium property, Cane Springs area, San Juan County, Utah, DMA Docket 1933.

In response to a request from the Field Team, Region IV, J. W. Healer and B. J. Sharp visited the property March 26-27, 1952 to determine the merit of the proposed program.

The applicants have produced approximately 100 tons of uranium-vanadium ore averaging 0.31 percent U_3O_8 and 2.25 percent V_2O_5. Uranium bearing rocks in the Cane Springs area, San Juan County, Utah are found in the upper part of the Salt Wash member of the Morrison formation of Jurassic age. The uranium occurs in extremely erratic sandstone lenses, and as replacement bodies in silicified logs and carbonaceous material. Only ores that contain visible uranium minerals or were highly radioactive have been explored by the applicants. All easily accessible ore has been mined.

The possibility of finding commercial bodies of uranium ore by crosscutting or diamond drilling is not good because of the extremely erratic distribution of the deposits. The cost of discovery of ore bodies is likely to be more than the value of the ore. It is therefore recommended that the application for a loan of $18,000.00 be denied.

I concur with the conclusions and recommendations of the consulting geologists that the possibility of finding uranium ore bodies of commercial grade on the Rust and Sears property is not good, and that the loan be denied.

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

Docket DMA 1933, Glen Hunt and M. M. Sears, uranium property,

Cane Springs Area, San Juan Co., Utah

J. W. Hasler and R. J. Sharp, Geologists
U. S. Geological Survey

May 5, 1952

CONTENTS

Introduction 1

Location and Accessibility 1

History and Production 1

Geology 2

Ore Deposits 3

Ore Reserves 3

Proposed Exploration 4

Summary and Conclusions 5

ILLUSTRATIONS

Figure 1. Index map of Utah.

Figure 2. Map of Glen Rust and M. M. Sears uranium property showing claims and proposed exploration work.

Docket DMA 1933, Glen Rust and M. M. Searz, uranium property

Cane Springs Area, San Juan Co., Utah

INTRODUCTION

Glen Rust and M. M. Searz of Cortez, Colorado have made an application to the Defense Minerals Exploration Administration for a loan of $48,000.00 to explore for uranium on their property.

In a response to a request from the Field Team, Region IV, dated June 18, 1952, J. W. Hasler and B. J. Sharp of the U. S. Geological Survey visited the property March 26-27, 1952, to determine the merit of the proposed exploration program.

Location and Accessibility

The Glen Rust and M. M. Searz uranium property is located in the Cane Springs area, San Juan County, Utah (fig. 1), in the W 1/2 of the NW 1/4 of School Sec. 16, T. 28 S., R. 23 E., S.L.B. and M. The mine can be reached by driving 22 miles south from Moab, Utah on U. S. Highway No. 160, thence 7 miles northeast on a poor dirt road.

History and Production

The operators, Mr. Glen Rust and Mr. M. M. Searz, leased the W 1/2, N 1/4 of School Sec. 16, T. 28 S., R. 23 E., S.L.B. and M., Cane Springs area, San Juan Co., Utah in 1951 to explore for uranium and vanadium ores. They began production of vanadium and uranium ore from the property in June 1951. Ore sold from June through November is reported to total about 45 tons assaying 0.04 to 1.95 percent U_3O_8 and from 0.96 to 4.96 percent percent V_2O_5. This ore has an average gross value of about $35.00 a ton.

GEOLOGY

The area is underlain by sedimentary rocks of Jurassic and Cretaceous age. The uranium-vanadium deposits are in sandstone beds in the lower part of the Morrison formation of Jurassic age.

In the Cane Springs area southeast of Moab, Utah, the Morrison formation consists of two members; the basal Salt Wash sandstone, which lies with apparent conformity upon the Summerville formation, and the Brushy Basin shale member, which lies conformably upon the Salt Wash sandstone member.

The mine workings and prospects are mainly in the Salt Wash member as stated by Baker [1].

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[1] Baker, A. A., Geology and Oil Possibilities of the Moab District, Grand and San Juan Counties, Utah: U. S. Geol. Survey Bull. 841, pp. 52-53, 1933.

"This member consists of white conglomeratic sandstone interbedded with red sandy mudstones and red shale. The white sandstones are medium to coarse grained, cross-bedded in part, irregularly bedded, and composed of rounded quartz grains cemented with calcium carbonate. The pebbles in the conglomerate zone are varicolored chert. In places silicified logs are embedded in the massive sandstones. The sandstones are locally impregnated with vanadium minerals and the yellow uranium mineral carnotite.

"The upper part of the Morrison formation is largely shale variegated in red and greenish-gray tones. Interbedded with the shale and subordinate in amount are gray silicified sandstone and conglomerate. The conglomerate consists of varicolored chert pebbles in a matrix of silicified white sandstone. The beds in the mine area strike northwest and dip gently to the southwest."

ORE DEPOSITS

The uranium in the Moab area and the Cane Springs district is localized in sandstone lenses, and in replaced tree trunks in the Salt Wash member of the Morrison formation of Jurassic age. The chief ore minerals of the productive mines are carnotite, vanadite, and roscoelite.

The principal uranium ore bearing unit in the Cane Springs district is in the upper part of the Salt Wash member of the Morrison formation. The ore occurs in sandstone lenses and northwestward trending rolls and as replacement of silicified logs and carbonaceous material.

The ore bodies at the Hunt and Sears property are extremely erratically distributed and form irregularly tabular masses that lie essentially parallel to the sandstone beds. The uranium ore bodies at the Hunt and Sears property have no particular trend. None of the northwestward trending rolls which are productive in nearby areas in the Salt Wash member of the Morrison formation were at Hunt and Sears property.

ORE RESERVES

Production from the Hunt and Sears property has come from sandstone lenses as much as 18 inches thick, from carbonaceous material, and from silicified logs that have been replaced by uranium and vanadium minerals. The ore-bearing sandstone lenses, carbonaceous material, and silicified logs are erratically distributed throughout the Salt Wash member and consequently it is difficult to predict where they may be found. It is therefore impossible to calculate the ore reserves that may be present on the property. To date, the applicant has mined about 100 tons from about 150 feet of workings.

If it is assumed that ore bodies of comparable size and trend may be found in the remaining area, 200 tons may be available in the blocks shown in figure 2.

Only areas that contain visible uranium minerals or were highly radioactive have been explored by the applicants. All the easily accessible ore has been mined. Future operations will be largely underground and will be much more costly than in the past.

PROPOSED EXPLORATION

The applicant has proposed to crosscut 400 feet to test for possible uranium bearing sandstone lenses, silicified logs or carbonaceous material, and to diamond core drill three separate areas shown in figure 2.

The possibility of finding commercial bodies of uranium ore by crosscutting or drilling in the area shown in figure 2 is not good because of the extremely erratic distribution of the deposits. The cost of the discovery of ore bodies is likely to be more than the value of the ore.

The Atomic Energy Commission does not anticipate the discovery of commercial ore in the area, but is interested in the possibilities for discovering large tonnages of submarginal ore. The geologists of the Atomic Energy Commission stated that they might do some drilling on the Rust and Sears property to test the trend and grade of ore bodies, but recommended that it would not be advisable for the DMEA to enter into a contract with the applicant. The applicant should not be informed that the Atomic Energy Commission might drill the property, as specific plans are still tentative.

SUMMARY AND CONCLUSIONS

In response to a request from the Field Team, Region IV, dated June 13, 1952, J. W. Hasler and B. J. Sharp of the U. S. Geological Survey visited the Glen Rust and M. M. Sears uranium property, Cane Springs area, San Juan County, Utah, with reference to a Defense Minerals Exploration Administration application for the exploration of uranium.

The Rust and Sears mine area is underlain by sedimentary rocks of Jurassic and Cretaceous age. The uranium-vanadium deposits are in sandstone beds in the lower part of the Morrison formation of Jurassic age. The uranium-vanadium deposits occur in sandstone lenses, silicified logs, and carbonaceous material which are erratically distributed throughout the rocks.

The Rust and Sears property has produced about 100 tons of uranium-vanadium ore averaging 0.31 percent U_3O_8 and 2.25 percent V_2O_5. If it is assumed that ore bodies of comparable size and grade may be found in the remaining area, 200 tons, valued at about $7,000, may be available.

All easily accessible ore has been mined out, and future operations will be largely underground which will prove more costly than in the past. Because of the extremely erratic distribution of the ore bodies, the cost of the discovery of additional ore bodies is likely to be more than the value of the ore. It is therefore concluded that the possibility of finding uranium ore reserves of commercial grade on the Rust and Sears property in any quantity, at a reasonable cost, is not good. It is therefore recommended that the application for a loan of $18,000 be denied.

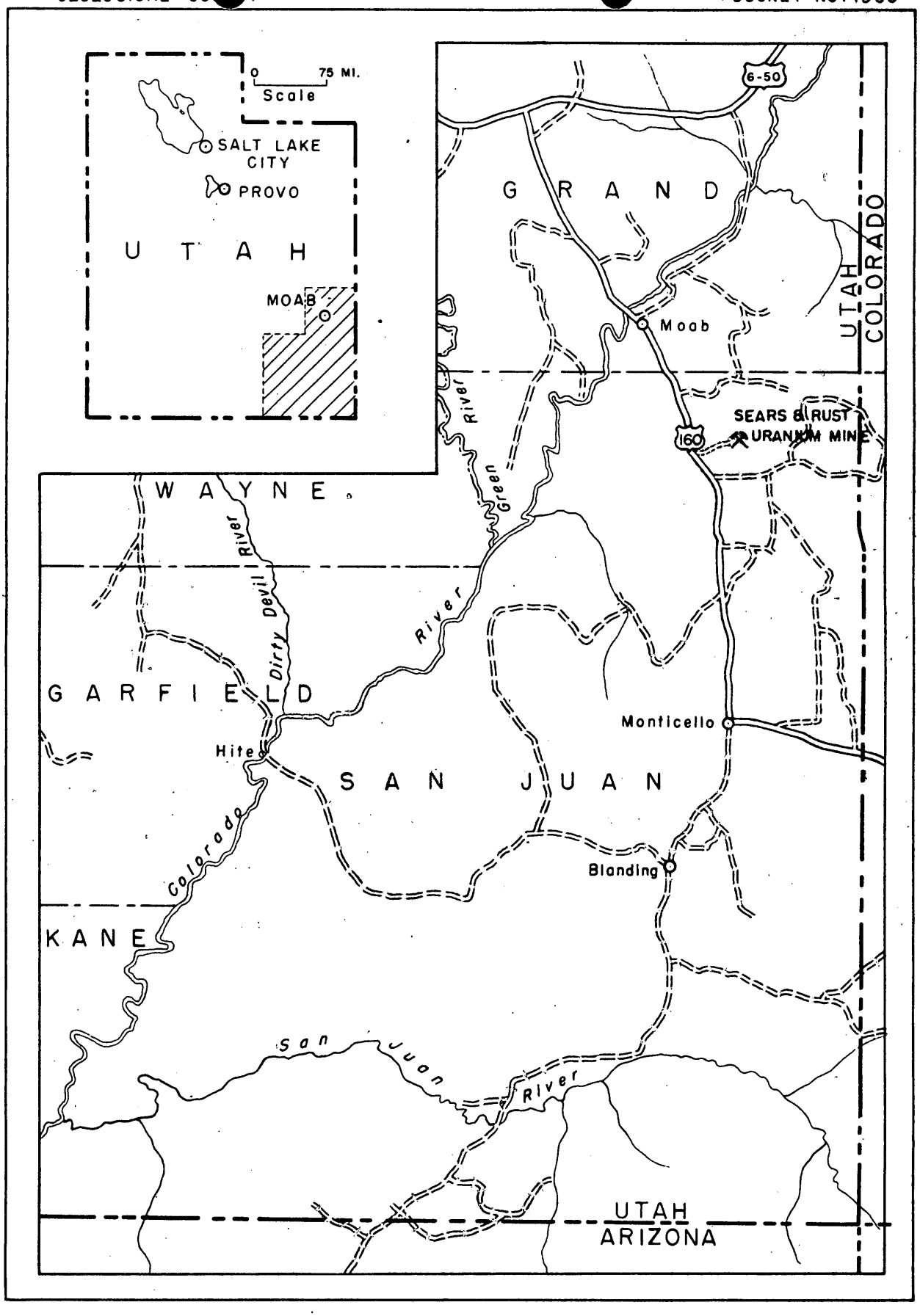

FIG. 1 INDEX MAP OF UTAH

0 5 10 15 20 MILES
Scale

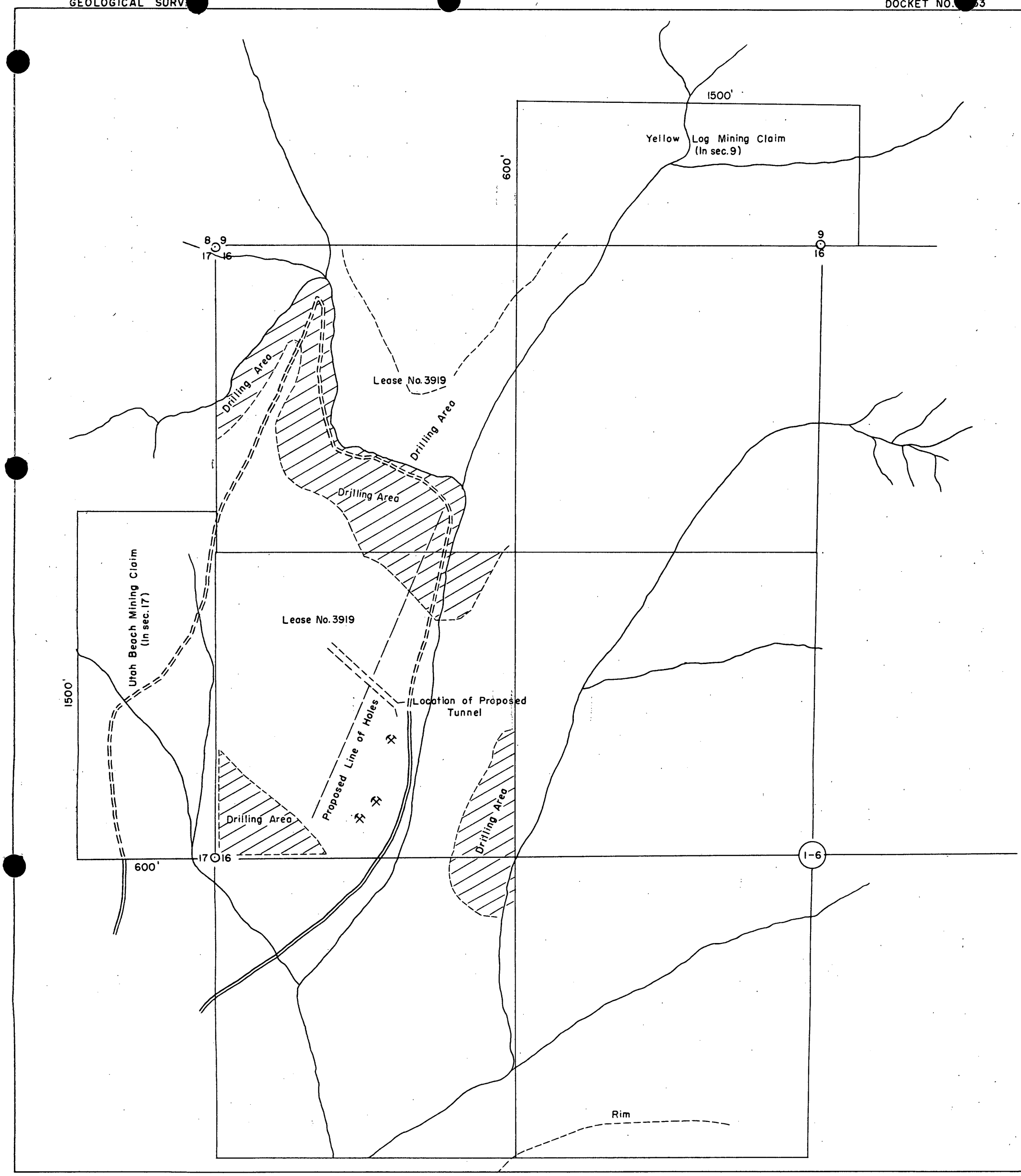

FIG. 2

RUST AND SEARS (URANIUM) RROPERTY

MOAB MINING DISTRICT

SAN JUAN COUNTY, UTAH

0 400 800 FEET
Scale

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

AUG 17 1951

Mr. J. H. East, Jr.
224 New Customhouse Bldg.
Denver 2, Colorado

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Docket No. DMA1933

Commodity Uranium

Applicant Glen Rust

Please expedite the consideration of this application with particular reference to the points raised in the attached "Review."

Very truly yours,

Tom Lyon, Chairman
Coordinating Committee

For Bureau of Mines

For Geological Survey

6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMA - 1933

Commodity Uranium

Total Amount $18,000

Govt. Participation $16,200

1. Name and Address of Applicant Glen Rust

Cortez, Colorado

2. Location of Property Cane Springs Area, San Juan County, Utah

3. Mineral or metal Uranium Is it listed in Section 9 of MO-5? Yes

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good

b) Poor

c) None

d) Don't know—needs field examination Report by Field Team is required. See Item 17.

e) Is there an alternative and favorable project? (If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? (question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached?

Does the lease have sufficient time to run to cover a future productive period?

*question numbers are those of MF-103

7. Are subordination agreements necessary?_____

a) MF-201?_____

b) MF-202_____

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower_____

b) Equipment and supplies_____
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)*_____

d) Water (question 13)*_____

e) Power (question 13)*_____

Is a field check needed on any of these points?_____

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)*_____

_____

Is a field check needed on this point?_____

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described?_____

If not, are there sufficient data given so that you can describe the project?_____ If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work?_____

_____

c) Is the proposed work "exploration" under the definition of Section 8, MO-5?_____

If not, what part of it is?_____

_____

_____

_____

Is this part a worthwhile exploration project?_____

d) Are the cost estimates detailed?_____

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data?_____ If so, attach a draft.

e) Are the cost estimates reasonable?_____

f) Should more information be requested from applicant?_____

g) Is a field examination necessary to complete Exhibit A?_____

11. Exhibit B (question 23-d)*

a) Is it applicable?_____

b) If so, are sufficient data furnished?_____ If so, attach a draft.

c) Is a field check needed?_____

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable?_____

b) Sufficient data?_____ If so, attach a draft.

c) Are rents and charges reasonable?_____

d) Is a field check needed?_____ _____

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data?_____

b) Is the schedule adequate for the work proposed?_____

c) Is the schedule excessive for the work proposed?_____

d) Are the proposed wages and salaries reasonable?_____

e) Is a field check needed?_____

14. Exhibit E (question 23-c)*

a) Is it applicable?_____

b) Sufficient data?_____

c) Reasonable?_____

d) Field check needed?_____

15. In your judgment, can the proposed work be done in the proposed time?_____

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? It is recommended that this application be reviewed with Mr. Richard P. Fischer, U.S. Geological Survey, and with Mr. T.V. Oster, U.S. Atomic Energy Commission, Grand Junction, Colorado.

Suggest till applicant to send in a new set of replies to questions on form MF-103, in full detail, as present information is far too little to permit any judgement whatsoever.

Reviewed by: E R Gordon.

H W Keiser, U.S.G.S.

J J Fosted AEC

Date August 13, 1951

INT.-DUP. SEC., WASH., D.C. 99009

FILE COPY
SURNAME:

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

Gordon Bourret
Ron Moon

A. E. C

AUG 17 1951

Mr. Glen Rust
Cortez
Colorado

Re: Uranium
DMA-1933

Dear Mr. Rust:

Your application, docket 1933, for an exploration project in the amount of $18,000,00, has been received by the Minor and Rare Metals Branch of the Supply Division.

Before a decision can be reached on your request we find it is necessary to obtain additional information on your property. Your application therefore is being referred to the office of the Executive Officer of DMA field team IV, Mr. J. H. East, Jr., 224 New Customhouse Building, Denver 2, Colorado with the request that the needed information be supplied to us.

In the event you have additional information that will assist the field engineers in evaluating this proposition we request that you submit such data in writing to Mr. East. During the period your application is in the hands of the field team, we suggest you direct all inquiries to that office.

Yours very truly,

SIGNED 8/17

Tom Lyon, Director
Supply Division

WBourret/mh 8-14-51
cc: Adm. Read. File
Reports and Records
Lyon
Kesier, Hosted, USGS
Bourret
Field Team IV
DMA docket files

August 8, 1951

Mr. Glen Rust
Cortez
Colorado

Subject: DMA-1933
Re: Exploration Loan

My dear Mr. Rust:

Receipt is acknowledged of your application and attachments of July 30, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1933 and referred to Mr. Weston Bourret, Chief, Minor & Rare Metals Branch on August 7, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1933.

Sincerely yours,

8/8
ca

ROBERT E. ADAMS

Robert E. Adams
Chief, Reports & Records Unit

REAdams:jc
cc: Bourret
Lyon
Reports & Records File

My copy of Adams receipt received & only one of state of Arizona & Lawyer Little, which great field.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA 1933

Date received 8-6-51

Participation

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
Date AUG 6 1951

Name and address of applicant

FILL IN THIS BLOCK

Date of application July 30, 1951.

Estimated cost $18000.00

Mineral or metal Uranium

Percentage of Government participation 90%

Location of mine San Juan County, Utah (Cane Spings Area)

Date of filing MF-100

DMA Docket Number, if available 1933

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

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*1. Is applicant an individual, partnership, or corporation? Partnership

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*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.

*5. Are you the owner or the lessee of the property? leessee

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. none

7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

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16—64067-1

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*11. State the present and former names of the property, if any. non e

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons. yes, Spring
State amount of power to be used, rate per hour or other cost, and source. gasoline

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work. none

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
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    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
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19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions. none

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? Urainum

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. 1 year
    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data. none available

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23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
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    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each. none
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24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

(Name of company)	By Glen Rust (Signature of authorized official)
(Date)	lessee (Title)

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

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA 1933

Date received 8-6-51

Participation

Name and address of applicant

Date

FILL IN THIS BLOCK

Date of application July 30, 1951

Estimated cost $18000.00

Mineral or metal Uranium

Percentage of government participation 90%

Location of mine San Juan County, Utah

(Cane Springs Area)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 6 1951

Date of filing MF-100

DMA Docket Number, if available 1933

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DEPARTMENT OF THE INTERIOR
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Location of mine San Juan County, Utah.
(Cane Springs Area)

Date of filing MF-100

DMA Docket Number, if available 1933

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(April 1951)

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DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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Date of filing MF-100

DMA Docket Number, if available 1933

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16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

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

*11. State the present and former names of the property, if any. none

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons. y es , Spring
State amount of power to be used, rate per hour or other cost, and source. gasolin e

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work. n one

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining	1 ton	.20 adv.	$25.00	$30.00
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions. none

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? Uranium

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. 1 year

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data. none available

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each. none
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

(Name of company)	By Glen Perret (Signature of authorized official)
(Date)	Lessee (Title)

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

*Same as footnote on page 1.

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