DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMEA ~~DMA~~ Docket No. 2656

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

EXPLORATION PROJECT

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip- Copies to USBM and USGS. One copy retained by Region IV.

To:	Code 700, Rm. 4640	Date	8-18-52
To:	Opr. Com.	Date	8-27-52
To:	Mittendorf	Date	
To:	Mails & Files	Date	
To:	Docket (Ellis)	Date	
To:	Opw Com	Date	6-3-53
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

FILE COPY
SURNAME:

Docket
Ellis
Kimball
Hodgson
Fellbridge
Fellmann

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

JUN 4 1953

Mr. Nicholas J. Murphy
P. O. Box 372
Moab, Utah

Re: Docket No. [illegible]-2150 (Uranium)
Uravan Mineral District
Grand County, Utah

Dear Mr. Murphy:

Reference is made to your application for Government aid on the proposed combined project call cited to cost $79,020.00.

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

A careful study of your application and data available to this agency and an evaluation of the property concerned reveal that the probability of discovering additional ore reserves by your proposed exploration program is not believed to be sufficient, at this time, to justify Government participation. Under these circumstances, we are not in a position that your application for exploration aid be granted.

If future work and your report provide evidence which could reasonably alter this opinion, please be assured we will be glad to consider a new application.

Sincerely yours,

C. O. Mittendorf (for)
Administrator

F.N.
6-4-53

EMEllis/dt
6/2/53
cc to: Adm. Reading File
Operating Committee
Docket
Messrs. [illegible] Keiser, Rm. 3041
[illegible] Butler, Jr., Rm. 5206 GSA
Ellis
DMEA Field Team, Region IV (2)

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

June 2, 1953

SUMMARY OF PROPOSED PROJECT

Docket No. DMEA-2656
Applicant: Nicholas J. Murphy
P. O. Box 372
Moab, Utah

Subject: Denial of application.

Commodity: Uranium
Location of property: Grand County, Utah Region IV
Amount of application: $79,030.00
Date of application: July 30, 1952

Outline of project: The applicant proposed to explore for uranium by driving five 600-foot cross cuts, two on the south group and three on the north group of claims.

Field Team Report: Dated: Dec. 9, 1952
by: C. R. Willden and J. W. Hasler
U. S. Geological Survey

Recommendation: Field Team transmitted memo May 9, 1953
Denial.

Commodity Members' comments:

Bureau of Mines: H. D. Keiser, May 26, 1953
Concurs in denial.

Geological Survey: Arthur P. Butler, Jr., May 25, 1953
Concurs in Field Team report.

Rare & Misc. Metals Division Engineer:
Ernest Wm. Ellis May 29, 1953
Contacted Mr. J. Hosted, AEC representative-
See memo May 29, 1953.
Denial letter prepared.

Ernest Wm. Ellis

ERNEST WM. ELLIS

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

May 29, 1953

Memorandum

To: Docket file

From: Ernest Wm. Ellis, Chief, Rare & Misc. Metals Division

Subject: Discussion with A.E.C. representative

On this date I contacted Mr. J. O. Hosted of the Atomic Energy Commission and he said that to the best of his belief all of the Atomic Energy drilling had been completed and that the results were such as to indicate a denial of the subject application.

Ernest Wm. Ellis

Ernest Wm. Ellis

5/28/53 gla

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C. May 26, 1953

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member
Uranium Commodity Committee

Subject: Final Report, DMEA Docket 2656, Nicholas J. Murphy Claims, Cooper Group, Grand County, Utah.

I have reviewed the subject report and discussed it with Arthur P. Butler, Geological Survey Member, and Joseph O. Hosted, representative of the Atomic Energy Commission.

I concur with the views expressed by Mr. Butler in his memorandum on the report, and suggest that the field team be requested to furnish the information indicated by Mr. Butler.

The report has been forwarded to the Chief, Minerals Division, in accord with the routing slip attached thereto.

H D Keiser
H. D. Keiser

STANDARD FORM NO. 64

5/29/53 gla

Office Memorandum • UNITED STATES GOVERNMENT

TO : E. W. Ellis, DMEA Member
Uranium Commodity Committee

DATE: May 25, 1953

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

SUBJECT: Field Team Final Report, DMEA Docket 2656 (uranium) Nicholas J. Murphy, applicant, Copper claim groups, mostly in Secs. 10 and 11, T. 25 S., R. 20 E., Grand Co. Utah.

I have reviewed the Field Team report about the properly identified in the subject above, and have discussed it with Mr. H. D. Keiser, Bureau of Mines member of the Commodity Committee.

Proposal

The applicant proposed to explore for uranium by driving five 600-foot cross cuts, two on the south group and three on the north group of claims.

Comment

Uranium minerals are sporadically distributed in the Shinarump conglomerate and the lower part of the Chinle formation on the applicants claims. Locally they are sufficiently concentrated to constitute ore as attested by the production of about 102 tons from one claim in the south group. The Field Team concludes that the occurrences on the north group, which are mostly associated with carbonized logs, are too small and sparsely distributed to warrant exploration. The Field Team report recommended, however, that two 600-foot cross cuts be driven on the south group, but also believed that the project be deferred until results of drilling planned by the Atomic Energy Commission were known. Some of this drilling was expected to explore part of the applicants ground.

Subsequent to preparation of the report the A.E.C. completed a drilling project to the north of the applicants ground in the same formations, but did not drill the applicants ground. The memorandum to A. H. Koschmann, from R. J. Roberts, dated April 29, which accompanies the report states, "It is the opinion of the A.E.C. geologists that the Copper claims do not warrant further exploratory work at the present time. It is therefore concluded that the application for a loan be denied." Although interpretation of the results of the A.E.C. drilling, which are not given in the memorandum may be a sound basis for concluding that exploratory work previously recommended is not now warranted, the reasoning concerning the applicability of those results to the applicants property is not made clear.

Recommendation

I concur with the Field Teams appraisal that the proposed exploration is not justifiable on the applicant's north group.

I believe, however, that the reason should be made clear as to why a favorable recommendation with respect to the south group was reversed as the result of exploration carried on a mile or more away.

Arthur P. Butler, Jr.

A. P. Butler, Jr.

Copy to: E. Wm. Ellis (2)

5/12/53 gla

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

224 New Customhouse
Denver 2, Colorado

May 9, 1953.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 11 1953

Memorandum

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

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2656 (Uranium), Nicholas J. Murphy Claims, Copper Group, Grand County, Utah.

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

The Atomic Energy Commission geologists concur in the belief that further exploration work on these claims is not warranted at this time.

We recommend that the application in the amount of $79,030.00 be denied.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE

5-15-53
(date)

#5/19/53 gla

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

224 New Customhouse
Denver 2, Colorado

May 9, 1953.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 11 1953

Memorandum

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

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2656 (Uranium), Nicholas J. Murphy Claims, Copper Group, Grand County, Utah.

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

The Atomic Energy Commission geologists concur in the belief that further exploration work on these claims is not warranted at this time.

We recommend that the application in the amount of $79,030.00 be denied.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE

5-15-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

May 9, 1953.

Memorandum

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 11 1953

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2656 (Uranium), Nicholas J. Murphy Claims, Copper Group, Grand County, Utah.

Enclosed are eleven copies of the final engineering report on the subject docket.

The applicant requested $79,030.00 to build an access road and drive five crosscuts. The examining engineers concur with the opinion held by the Atomic Energy Commission that further exploratory work on these claims is not warranted at this time.

We recommend that the application be denied.

W. H. King
W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
5-15-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

May 4, 1953

Memorandum

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

From: Chief, Minerals Development Branch, Mining Division, Region IV

Subject: DMEA 2656, Nicholas J. Murphy, Copper group, Grand County, Utah

Enclosed are the original and 10 copies of an engineering report covering the subject property. The original brochure and other data are also attached.

The property was examined by C. R. Willden and J. W. Hasler of the Survey, and J. F. Haynes of the Bureau of Mines October 30, 1952. This examination was one of a series of examinations and inspections made by the Survey-Bureau team while in the area.

A report was prepared by the Survey and transmitted to Denver December 10, 1952. This report recommended deferment of specific exploratory proposals until a decision could be made by the AEC concerning diamond drilling in the area of the applicant's property. At the time of examination, drilling was being conducted by AEC a short distance to the north, in the Coral Canyon area. It was believed reasonable to withhold completion of an engineering report pending decision of AEC to drill the applicant's ground, and results of the drilling program near the Murphy property.

Recent discussions between J. W. Hasler and AEC field geologists have led to the conclusion that the Copper Group claims does not warrant the proposed exploratory work at this time. This conclusion is contained in a memorandum from Ralph J. Roberts to A. H. Koschmann dated April 29, 1953. It is, therefore, believed that the information assembled by the examining engineer should be added to the data previously transmitted by the Survey.

A check of the records of the Bureau of Land Management and the County Recorder's Office, Grand County, Utah, indicates that many of the claims included in the North Group in the west half of Section 11 and the east half of Section 10, T. 25 S., R. 20 E., are not valid because of previous Federal oil and gas leases. Claims in

Reviewed by
DMEA OPERATING COMMITTEE
5-15-53
(date)

the South Group, in Sections 13 and 14, T. 25 S., R. 20 E., appear to be valid. The original locations were made April 6, 1948. An oil and gas lease application covering parts of Sections 11, 12, 13 and 14, T. 25 S., R. 20 E., was filed October 17, 1949, and a lease issued December 29, 1949.

Stephen R. Wilson

Stephen R. Wilson

COPY

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Room 208, 222 So. West Temple
Salt Lake City 1, Utah
29 April 1953

Reviewed by
DMEA OPERATING COMMITTEE

(Geo)

Memorandum

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

From: Ralph J. Roberts

Subject: DMEA Docket 2656, Nicholas J. Murphy, Copper Group, Grand County, Utah, Seven Mile Canyon Area.

A geologic report, on the Nicholas J. Murphy Copper Group of claims in the Seven Mile Canyon area near Moab, Utah, was submitted to the Field Team Region IV, December 10, 1952, by J. W. Hasler.

The applicant applied for a DMEA loan to explore for uranium on his Copper Group of claims that lie on the north side of the Moab anticline about 10 miles northwest of Moab, Grand County, Utah. The rocks in the mine area are largely sandstone, clay, mudstone and shale of Triassic and Jurassic age. Uranium mineralization is present on some of the Copper Group of claims as carnotite partially replacing carbonized woody material in the Shinarump conglomerate, and as unidentified uranium minerals disseminated in a sandy mudstone lense of the Shinarump conglomerate.

The property has produced 101.93 tons of 0.27% U_3O_8 ore, from the Copper No. 1 claim. There were only a few areas of commercial grade ore exposed on the applicant's claims at the time of the examination.

The applicant requested a loan of $79,030.00 to be used for driving five 600 feet crosscuts on what he considers to be promising showings on four claims. Three of the proposed crosscuts on the Copper No. 3A, 3B, 4A, and Copper No. 7 claims have little geologic merit at the present time.

Present ore showings in the workings on the Copper No. 1 and 1A claims are not too promising. The two crosscuts proposed by the applicant on these claims seem warranted on the basis of its production record, but it was suggested that any exploratory work be deferred, pending results of a proposed A.E.C. diamond drilling program in the Seven Mile area.

The Atomic Energy Commission drilled north of the Copper Group of claims in the Coral Canyon area, but did not drill the Nicholas J. Murphy property. It is the opinion of the A.E.C. field geologists that the Copper claims do not warrant further exploratory work at the present time. It is therefore concluded that the application for a loan be denied. The examining geologists concur with the opinion held by the A.E.C.

/s/ J. William Hasler

for - Ralph J. Roberts

Received May 1, 1953
USGS, Mineral Deposits Branch
Denver

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

WASHINGTON 25, D. C.
200 New Customhouse
Denver 2, Colorado

December 12, 1952

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 2656, Nicholas J. Murphy Claims, Moab, Grand County, Utah.

Enclosed are 11 copies of the geologic report by J. W. Hesler and C. R. Willden of the U. S. Geological Survey, covering the above docket. It has been recommended that the exploration program outlined in this report be held in abeyance pending results of the A. E. C. drilling.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (11)

Reviewed by
DMEA OPERATING COMMITTEE

5-15-53
(date)

Room 236 - 222 So. W. Temple
Salt Lake City 1, Utah
December 10, 1952

Memorandum

To: A. E. Kanchmann, Field Team, Region IV

From: Ralph J. Roberts, Utah-Nevada District Office

Subject: DMEA 2656, Nicholas J. Murphy Claims, Moab, Grand County, Utah.

Enclosed are eleven copies of a geologic report on the Nicholas J. Murphy claims in the Seven Mile area near Moab, Utah. Mr. Murphy has applied to the Defense Minerals Exploration for a loan to explore for uranium on his copper group claims.

A field examination was made October 29 and 30, 1952, by J. W. Hasler and R. C. Milldon of the U. S. Geological Survey, and J. F. Hansen of the U. S. Bureau of Mines as a result of a request by the Field Team, Region IV.

The Murphy claims are on the north side of the Moab anticline about 10 miles northwest of Moab, Grand County, Utah. The rocks in the mine area are mainly sandstone, shale, siltstone, sandstone, and conglomerate ranging in age from Triassic to Jurassic. Uranium minerals replace carbonized material in the Shinarump conglomerate and are disseminated in Chinle sandy sandstone lenses.

The Murphy claims have produced 101.93 tons of ore averaging 0.27 percent U_3O_8 ore. The possibility of finding additional uranium ore of commercial grade at depth on the Copper No. 1 and 1A claims is good. It is therefore recommended that provision be made for two 600-foot crosscuts to be driven down the dip of the ore bed.

A drilling program is now being carried on by the A. E. C. in the mine area. As this program will explore part of the area the applicant has proposed to explore in his DMEA application, it is recommended that the exploratory program outlined in this report be held in abeyance pending results of the A. E. C. drilling. A more thorough exploratory program may then be worked out between the applicant and DMEA representatives. The U. S. Bureau of Mines will submit the brochure with the engineering report.

I concur with the conclusions of the examining geologists that the proposed exploratory work be held in abeyance pending results of the A. E. C. diamond drilling program.

Reviewed by
DMEA OPERATING COMMITTEE

5-15-53
(date)

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA Docket 2656, Nicholas J. Murphy Claims

Moab, Grand County, Utah

by

C. R. Willden and J. W. Hasler
U. S. Geological Survey

December 9, 1952

Reviewed by
DMEA OPERATING COMMITTEE

5-15-53
(date)

Table of Contents

	Page
Introduction	1
Geology	1
Ore Deposits	2
Ore Reserves	3
Proposed Exploration	3
Summary and Conclusions	4

Illustrations

Figure 1. Index Map of Utah

2. Geologic Map of Seven Mile Canyon Area, Grand County, Utah

3. Map showing location of claims and proposed exploration cross-cuts, Murphy and Babbel Claims, Seven Mile Area, Moab, Utah

GEOLOGIC REPORT

NICHOLAS J. MURPHY CLAIMS

MOAB, GRAND COUNTY, UTAH

DMEA Docket 2656

Introduction

Mr. Nicholas J. Murphy, Moab, Grand County, Utah has applied to the Defense Minerals Exploration Administration for a loan to explore for uranium on his claims located on the south side of Seven Mile Canyon near Moab, Utah (Fig. 1). In accordance with a request from the Field Team, Region IV, an examination of the property was made October 29 and 30, 1952 by C. R. Willden and J. W. Hasler of the U. S. Geological Survey, and J. F. Haynes of the U. S. Bureau of Mines.

Geology

The Murphy claims are on the north side of the Moab anticline about 10 miles northwest of Moab, Utah. The sedimentary rocks in the immediate area of the claims range in age from Permian to Jurassic and consist of sandstone, shale, mudstone, limestone, and conglomerate (Fig. 2). The beds in this area strike N. 15° W. and dip about 15° to the southwest. The uranium mineralization occurs in sandstone and mudstone beds in lenses of Shinarump conglomerate.

The Cutler formation of Permian age is the oldest formation exposed in the immediate area of the claims. The Cutler formation is unconformably overlain by the Moenkopi formation of lower Triassic age. The Moenkopi is unconformably overlain by the Shinarump conglomerate and by the Chinle formation where the Shinarump is absent. The Shinarump conglomerate and the Chinle formation are of upper Triassic age. The Wingate sandstone of Jurassic(?) age conformably overlies the Chinle formation and is overlain by the Kayenta formation of Jurassic(?) age.

The Shinarump conglomerate is not present everywhere in the vicinity of the Murphy claims, due either to non-deposition or erosion. The Shinarump is

principally a light-gray to light-green conglomeratic sandstone, but it also contains some sandstone and sandy mudstone lenses.

The Moab Fault, a prominent northwest-trending normal fault with about 2,600 feet displacement, traverses the area about 3/4 to 1 mile northeast of the Murphy claims. The northeast side of the fault is down thrown.

Ore Deposits

On the north side of Seven Mile Canyon uranium ore bodies have been reported in both the Chinle and Shinarump formations, with locally high grade deposits in calcareous conglomerate of the Shinarump formation. On the south side of Seven Mile Canyon uranium mineralization was noted only in sandstone and sandy mudstone beds of the Shinarump conglomerate. The deposits on the Murphy claims are low grade and very discontinuous. The only uranium mineral identified was carnotite.

Uranium mineralization was noted by the examining geologists on four of Murphy's claims, the Copper No. 1, Copper No. 1A, Copper No. 1B, and Copper No. 3B, and reported by the applicant on a fifth claim, the Copper No. 7. On the Copper No. 1, Copper No. 1A, and Copper No. 1B claims the uranium occurs as unidentified uranium minerals principally disseminated in light-gray to light-green sandstone and sandy mudstone, and, to a minor extent, replaces carbonized woody material. On the Copper No. 3B claim the only uranium mineralization noted was a small carbonized log partially replaced by carnotite. The applicant reports that a similar log occurs on the Copper No. 7 claim.

The Copper No. 1 claim is the only claim with a production record. The applicant shipped a total of 101.93 tons of ore with an average grade of 0.27% U_3O_8 from an adit 60 feet long on this claim. The following production records seem to indicate that the applicant hand sorted the ore in order to maintain a commercial grade:

Date of Shipment	Tons	Percentage U_3O_8	Pounds U_3O_8
May and August, 1951	23.53	0.44	204.41
October, 1951	4.86	0.41	39.86
January, 1952	16.14	0.22	69.79
June and July, 1952	57.40	0.20	230.36

The ore occurred in a sandy mudstone bed about two feet thick. Apparently all of the commercial ore has been mined out because the examining geologists were unable to find any promising radioactive anomalies in the adit. One six-foot channel sample cut from the side of the adit 49 feet from the portal assayed 0.034% U_3O_8 and 0.01% V_2O_5.

Ore Reserves

The blocked out ore on the Copper No. 1 claim has been largely mined, and the remaining uranium-bearing material is too low grade to mine. Despite the fact that the applicant mined 100 tons of ore from this property, there is no apparent basis for inferring ore reserves beyond the present workings. The uranium showings on the other claims are too low grade and too discontinuous to permit calculation of inferred ore reserves on these properties.

Proposed Exploration

The applicant has proposed driving five 600 feet crosscuts on showings that he considers to be promising on the Copper No. 1, Copper No. 1A, Copper No. 3B (2 crosscuts), and Copper No. 7 claims, (fig. 3). The work as outlined by the applicant would cost a total of $79,030.00.

Under the applicant's proposal, crosscuts 4 and 5 on the Copper No. 3B and Copper No. 7 claims, respectively, would be driven at points where small carbonized logs partly replaced by carnotite crop out. In general, uranium-bearing logs are so erratically distributed throughout the Shinarump conglomerate that an exploration program involving the driving of drifts in search for "blind" logs has little geologic merit, however, the main purpose of the crosscuts is to establish possible ore trends or channels and to test the possibility of increased grade of ore at depth beyond the zone of weathering, down the dip of the ore-bearing horizon. Crosscuts proposed on the Copper No. 3A, 3B, 4A and Copper No. 7 claims do not appear to be as well located as the ones on the Copper No. 1, 1A, and 1B claims since the latter claims have had some production, and show possible occurrences of ore grade material.

All of the blocked out ore has been mined from the workings on the Copper No. 1 and No. 1A claims. There were only a few areas in the workings on these claims that showed ore of commercial grade, however, the entire production of 101.93 tons of ore averaging 0.27 percent U_3O_8 has come from one 5'x7' drift 60 feet long. This production amounts to 1.698 tons per linear foot of drift, which is excellent production for such a small area explored.

The two crosscuts proposed by the applicant on the Copper 1, and 1A claims appear to have a good chance of finding additional commercial ore, as well as establishing any possible ore trends. It is recommended that these two 600 feet crosscuts be driven as shown in fig. 3. However, the Atomic Energy Commission has recently begun exploratory work on nearby ground and is reported to have plans for diamond drilling the Copper Claims No. 1 and 1A, in the near future. As the A. E. C. drilling program will explore part of the area the applicant has proposed to do DMEA work on, it is recommended that the program outlined in this report be deferred until the A. E. C. drilling is well advanced. More promising areas may be discovered by the drilling and a more definite exploratory program can be set up.

Summary and Conclusions

The Murphy claims are underlain by the Moenkopi, Shinarump, and Chinle formations of Triassic age, and the Wingate and Kayenta formations of Jurassic(?) age. Uranium mineralization is present on some of the claims as carnotite partially replacing carbonized woody material in the Shinarump conglomerate, and as unidentified uranium minerals disseminated in a sandy mudstone lens of the Shinarump conglomerate.

The property has produced 101.93 tons of 0.27% U_3O_8 ore, all from an adit on the Copper No. 1 claim. There are only a few areas of commercial grade ore exposed on the applicant's claims at the present time.

The applicant has requested a loan of $79,030.00 to be used for driving five 600 feet crosscuts on what he considers to be promising showings on four claims. Three of the proposed crosscuts on the Copper Nos. 3A, 3B, 4A, and Copper No. 7 claims have little geologic merit at the present time.

Present ore showings in the workings on the Copper No. 1 and 1A claims are nottoo promising, but 60 feet of drift has produced 101.93 tons of ore averaging 0.27 percent U_3O_8. The two crosscuts proposed by the applicant on these claims seem warranted on the basis of the production record, but should be deferred, pending the results of the present A. E. C. diamond drilling program on the Copper claims, which will cover a portion of the area in the DMEA application. If the diamond drilling shows promising areas, then a more complete exploratory program can be planned by the applicant and the DMEA.

It is therefore recommended that any exploratory work as now planned for the Murphy claims by DMEA be withheld pending results of the diamond drilling program now in process by the Atomic Energy Commission.

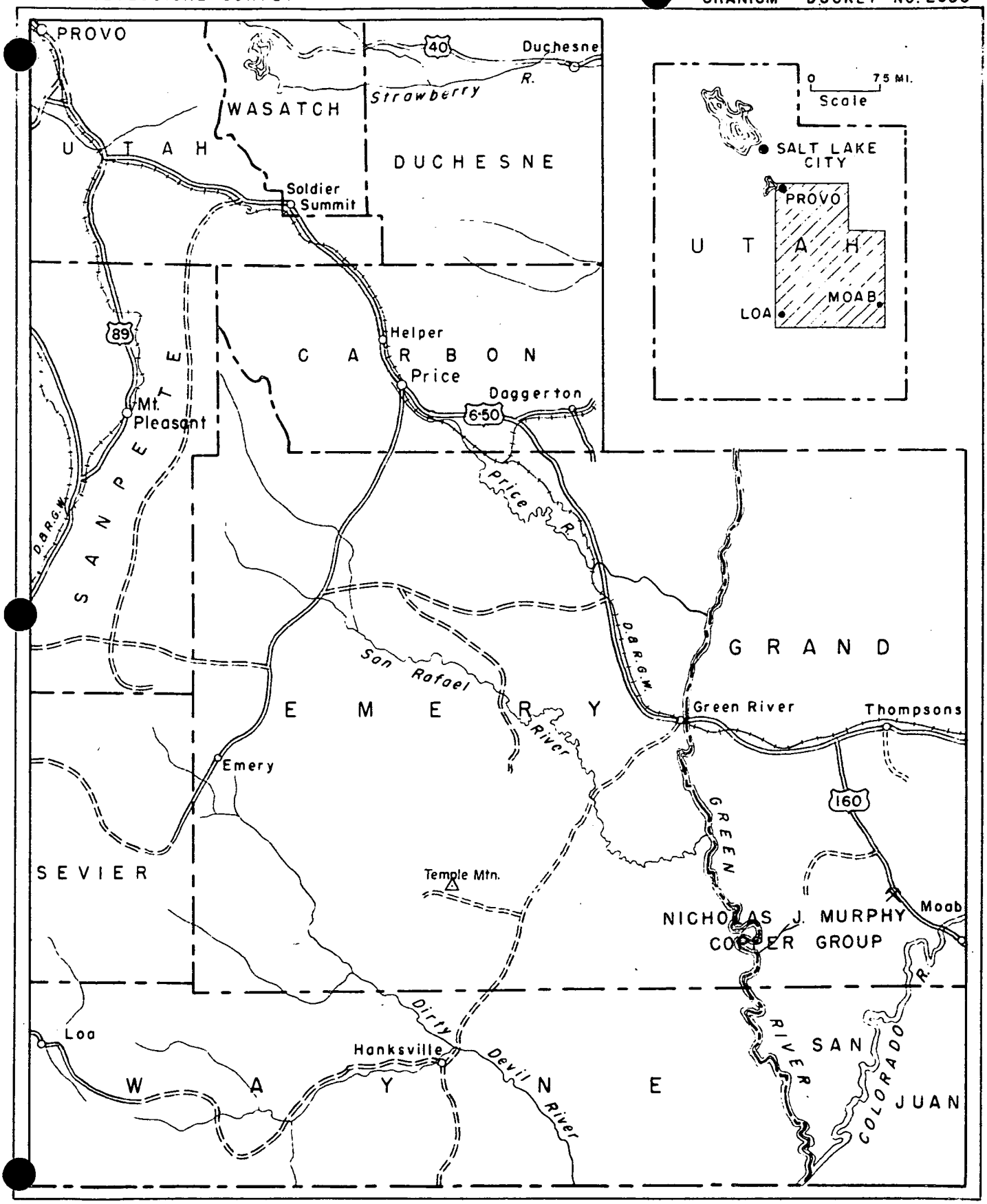
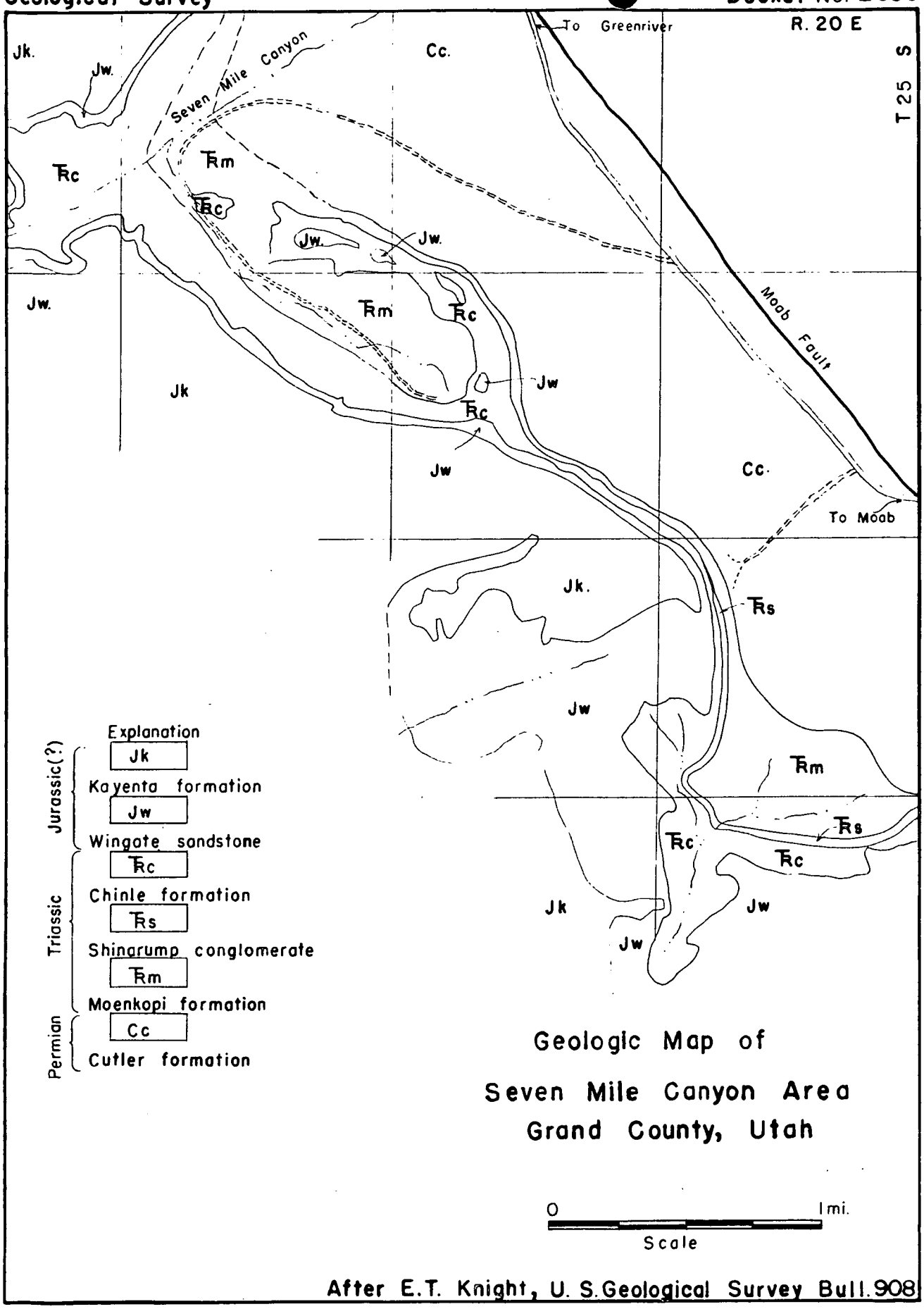


FIG. I INDEX MAP OF UTAH

0 5 10 15 20 MILES
Scale



After E.T. Knight, U. S. Geological Survey Bull. 908

FIG. 2

NICHOLAS J. MURPHY
COPPER GROUP CLAIMS
GRAND COUNTY, UTAH
DMEA-2656
Uranium

Engineering Report

By John F. Haynes
Mining engineer
Bureau of Mines

NICHOLAS J. MURPHY
COPPER GROUP CLAIMS
GRAND COUNTY, UTAH

CONTENTS

	Page
Engineering report	
Introduction	2
Location and physical features	2
History and production	3
Ownership and extent	3
Present status	4
Conclusions and recommendations	5

INTRODUCTION

An examination of Nicholas J. Murphy's Copper Group claims in Grand County, Utah, was made October 29 and 30, 1952, by John F. Haynes of the Bureau of Mines, and J. W. Hasler and C. R. Willden of the Geological Survey. Mr. Murphy accompanied the examining personnel to the properties.

The purpose of the examination was the evaluation of the claims for a DMEA exploratory loan application. The cost of the proposed exploratory program was estimated by the applicant to be $79,030.

LOCATION AND PHYSICAL FEATURES

The Copper Group of claims is located approximately 10 miles northwest of Moab, Utah, near U. S. Highway 160. The nearest and most accessible group of claims, the South Group, is less than 1 mile west of the highway. This group is reached by a dirt road from the highway to the cliff where the workings are located, then by a road cut into the rim for the remaining distance. The North Group is reached via Seven Mile and Dry Canyons, the road leading from Dry Canyon to the properties also being cut into the rim. One of the claims in this group is reached by the road. The others are inaccessible to vehicles at this time, although the owners intend to complete the road to the other claims.

The two groups of claims which may be benefitted by the proposed exploration program are located in Sections 10, 11, 13, and 14, T. 25 S., R. 20 E., S.L.B. & M. The groups are not contiguous.

The nearest source of supplies and labor is Moab, Utah. The railroad shipping point is Crescent Junction, 27 miles to the north. Ore-purchasing stations are at Thompson, 33 miles to the north, and Monticello, 67 miles to the south. The purchasing station to which ores will be sold will depend upon grade, type of mineralization, and impurities.

HISTORY AND PRODUCTION

The Copper Group of claims was located by Nicholas J. Murphy, Gordon Babble, and Samuel R. Zimmerman April 6, 1948. Amended locations were filed September 28, 1951. A small tonnage of ore has been produced from the South Group, the total reported to be 101.93 tons averaging .27 percent U_3O_8. The uranium recovered from the ore amounted to 559.42 pounds. Much of this production resulted from road construction along the rim of the Shinarump formation, although some was mined from an adit which, at the time of the examination, had been driven 60 feet into the cliff.

At the present time production is negligible, the operator apparently awaiting the outcome of the DMEA application.

OWNERSHIP AND EXTENT

The Copper Group consists of 15 unpatented mining claims which are located in two separate groups known as the South Group and the North Group. The claims are located in Sections 10, 11, 13, and 14, T. 25 S., R. 20 E. The claims are controlled by the above-mentioned partnership. They are recorded in the office of the County Recorder in Moab, Grand County, Utah, and are listed as follows:

Name of claim	Source of information
Copper No. 1	Book 9K, page 326
Copper No. 1A	Book 9K, page 337
Copper No. 1B	Book 9K, page 338
Copper No. 2	Book 9K, page 339
Copper No. 2A	Book 9K, page 340
Copper No. 2B	Book 9K, page 341
Copper No. 3	Book 9K, page 342
Copper No. 3A	Book 9K, page 343
Copper No. 3B	Book 9K, page 344
Copper No. 3C	Book 9K, page 345
Copper No. 4	Book 9K, page 346
Copper No. 4A	Book 9K, page 347
South Fork No. 1	Book 9K, page 435
Azurite No. 1	Book 9K, page 335

PRESENT STATUS

At the present time, the workings on the Copper Group consist of a few hundred feet of exposed rim plus two short adits in the South Group. These adits are 60 feet and 5 feet in length, respectively, and were started on the most promising mineralization exposed during the road construction. Some ore was sorted from the adits and mixed with that obtained from the rim stripping to make up the 101.93 tons of ore reported above. Samples were taken from the longer of the two adits and from the dump on the rim during the present examination period. The sample taken from the adit assayed 0.034 percent U_3O_8 and 0.01 percent V_2O_5 over a width of 6 feet. No particular concentration was noted in this total width of the sample. The sample taken from the sorted ore on the dump assayed 0.112 percent U_3O_8 and 0.01 percent V_2O_5. Mr. Murphy is working in the main adit, and erratic mineralization is present in the face.

The Atomic Energy Commission began a diamond drilling program in the Seven Mile area to the north of the Copper Group on November 3, 1952. However, this agency apparently does not consider the Copper claims to have sufficient geologic merit to warrant exploratory work south of Seven Mile Canyon.

CONCLUSIONS AND RECOMMENDATIONS

A small tonnage of ore has been produced from the South Group of claims by hand sorting the low-grade uranium-bearing sandstone and conglomerate. However, geologic evidence indicates the improbability of discovery of significant ores by performance of exploratory work proposed by the applicant. It is therefore recommended by the examining geologists and engineer that the loan request be denied.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

May 9, 1953.

Memorandum

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 11 1953

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2656 (Uranium), Nicholas J. Murphy Claims, Copper Group, Grand County, Utah.

Enclosed are eleven copies of the final engineering report on the subject docket.

The applicant requested $79,030.00 to build an access road and drive five cresscuts. The examining engineers concur with the opinion held by the Atomic Energy Commission that further exploratory work on these claims is not warranted at this time.

We recommend that the application be denied.

W. H. King
W. H. King

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

May 4, 1953

Memorandum

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

From: Chief, Minerals Development Branch, Mining Division, Region IV

Subject: DMEA 2656, Nicholas J. Murphy, Copper group, Grand County, Utah

Enclosed are the original and 10 copies of an engineering report covering the subject property. The original brochure and other data are also attached.

The property was examined by C. R. Willden and J. W. Hasler of the Survey, and J. F. Haynes of the Bureau of Mines October 30, 1952. This examination was one of a series of examinations and inspections made by the Survey-Bureau team while in the area.

A report was prepared by the Survey and transmitted to Denver December 10, 1952. This report recommended deferment of specific exploratory proposals until a decision could be made by the AEC concerning diamond drilling in the area of the applicant's property. At the time of examination, drilling was being conducted by AEC a short distance to the north, in the Coral Canyon area. It was believed reasonable to withhold completion of an engineering report pending decision of AEC to drill the applicant's ground, and results of the drilling program near the Murphy property.

Recent discussions between J. W. Hasler and AEC field geologists have led to the conclusion that the Copper Group claims does not warrant the proposed exploratory work at this time. This conclusion is contained in a memorandum from Ralph J. Roberts to A. H. Koschmann dated April 29, 1953. It is, therefore, believed that the information assembled by the examining engineer should be added to the data previously transmitted by the Survey.

A check of the records of the Bureau of Land Management and the County Recorder's Office, Grand County, Utah, indicates that many of the claims included in the North Group in the west half of Section 11 and the east half of Section 10, T. 25 S., R. 20 E., are not valid because of previous Federal oil and gas leases. Claims in

Reviewed by
DMEA OPERATING COMMITTEE

5-15-53
(date)

the South Group, in Sections 13 and 14, T. 25 S., R. 20 E., appear to be valid. The original locations were made April 6, 1948. An oil and gas lease application covering parts of Sections 11, 12, 13 and 14, T. 25 S., R. 20 E., was filed October 17, 1949, and a lease issued December 29, 1949.

Stephen R. Wilson

Stephen R. Wilson

C O P Y

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Room 208, 222 So. West Temple
Salt Lake City 1, Utah
29 April 1953

Memorandum

Reviewed by
DMEA OPERATING COMMITTEE
5-15-53
(date)

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

From: Ralph J. Roberts

Subject: DMEA Docket 2656, Nicholas J. Murphy, Copper Group, Grand County, Utah, Seven Mile Canyon Area.

A geologic report, on the Nicholas J. Murphy Copper Group of claims in the Seven Mile Canyon area near Moab, Utah, was submitted to the Field Team Region IV, December 10, 1952, by J. W. Hesler.

The applicant applied for a DMEA loan to explore for uranium on his Copper Group of claims that lie on the north side of the Moab anticline about 10 miles northwest of Moab, Grand County, Utah. The rocks in the mine area are largely sandstone, clay, mudstone and shale of Triassic and Jurassic age. Uranium mineralization is present on some of the Copper Group of claims as carnotite partially replacing carbonized woody material in the Shinarump conglomerate, and as unidentified uranium minerals disseminated in a sandy mudstone lense of the Shinarump conglomerate.

The property has produced 101.93 tons of 0.27% U_3O_8 ore, from the Copper No. 1 claim. There were only a few areas of commercial grade ore exposed on the applicant's claims at the time of the examination.

The applicant requested a loan of $79,030.00 to be used for driving five 600 foot crosscuts on what he considers to be promising showings on four claims. Three of the proposed crosscuts on the Copper No. 3A, 3B, 4A, and Copper No. 7 claims have little geologic merit at the present time.

Present ore showings in the workings on the Copper No. 1 and 1A claims are not too promising. The two crosscuts proposed by the applicant on these claims seem warranted on the basis of its production record, but it was suggested that any exploratory work be deferred, pending results of a proposed A.E.C. diamond drilling program in the Seven Mile area.

The Atomic Energy Commission drilled north of the Copper Group of claims in the Coral Canyon area, but did not drill the Nicholas J. Murphy property. It is the opinion of the A.E.C. field geologists that the Copper claims do not warrant further exploratory work at the present time. It is therefore concluded that the application for a loan be denied. The examining geologists concur with the opinion held by the A.E.C.

/s/ J. William Hesler

for - Ralph J. Roberts

Received May 1, 1953
USGS, Mineral Deposits Branch
Denver

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

December 12, 1952

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 2656, Nicholas J. Murphy Claims, Moab, Grand County, Utah.

Enclosed are 11 copies of the geologic report by J. W. Hasler and C. R. Willden of the U. S. Geological Survey, covering the above docket. It has been recommended that the exploration program outlined in this report be held in abeyance pending results of the A. E. C. drilling.

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

Enclosures (11)

Reviewed by
DMEA OPERATING COMMITTEE
5-15-53
(date)

Room 206 - 222 So. W. Temple
Salt Lake City 1, Utah
December 10, 1952

Memorandum

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

From: Ralph J. Roberts, Utah-Nevada District Office

Subject: DMEA 2656, Nicholas J. Murphy Claims, Moab, Grand County, Utah.

Enclosed are eleven copies of a geologic report on the Nicholas J. Murphy claims in the Seven Mile area near Moab, Utah. Mr. Murphy has applied to the Defense Minerals Exploration for a loan to explore for uranium on his copper group claims.

A field examination was made October 29 and 30, 1952, by J. W. Beasley and R. G. Wilden of the U. S. Geological Survey, and J. T. Hansen of the U. S. Bureau of Mines as a result of a request by the Field Team, Region IV.

The Murphy claims are on the north side of the Moab anticline about 10 miles northwest of Moab, Grand County, Utah. The rocks in the mine area are mainly sandstone, shale, siltstone, mudstone, and conglomerate ranging in age from Triassic to Jurassic. Uranium minerals replace carbonized material in the Shinarump conglomerate and are disseminated in Chinle sandy mudstone lenses.

The Murphy claims have produced 101.93 tons of ore averaging 0.27 percent U_3O_8 ore. The possibility of finding additional uranium ore of commercial grade at depth on the Copper No. 1 and 14 claims is good. It is therefore recommended that provision be made for two 600-foot crosscuts to be driven down the dip of the ore bed.

A drilling program is now being carried on by the A. E. C. in the mine area. As this program will explore part of the area the applicant has proposed to explore in his DMEA application, it is recommended that the exploratory program outlined in this report be held in abeyance pending results of the A. E. C. drilling. A more thorough exploratory program may then be worked out between the applicant and DMEA representatives. The U. S. Bureau of Mines will submit the brochure with the engineering report.

I concur with the conclusions of the consulting geologists that the proposed exploratory work be held in abeyance pending results of the A. E. C. diamond drilling program.

Reviewed by
DMEA OPERATING COMMITTEE

5-15-53
(date)

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA Docket 2656, Nicholas J. Murphy Claims

Moab, Grand County, Utah

by

C. R. Willden and J. W. Hasler
U. S. Geological Survey

December 9, 1952

Reviewed by
DMEA OPERATING COMMITTEE
5-15-53
(date)

Table of Contents

	Page
Introduction	1
Geology	1
Ore Deposits	2
Ore Reserves	3
Proposed Exploration	3
Summary and Conclusions	4

Illustrations

Figure 1. Index Map of Utah

2. Geologic Map of Seven Mile Canyon Area, Grand County, Utah

3. Map showing location of claims and proposed exploration cross-cuts, Murphy and Babbel Claims, Seven Mile Area, Moab, Utah

GEOLOGIC REPORT

NICHOLAS J. MURPHY CLAIMS

MOAB, GRAND COUNTY, UTAH

DMEA Docket 2656

Introduction

Mr. Nicholas J. Murphy, Moab, Grand County, Utah has applied to the Defense Minerals Exploration Administration for a loan to explore for uranium on his claims located on the south side of Seven Mile Canyon near Moab, Utah (Fig. 1). In accordance with a request from the Field Team, Region IV, an examination of the property was made October 29 and 30, 1952 by C. R. Willden and J. W. Hasler of the U. S. Geological Survey, and J. F. Haynes of the U. S. Bureau of Mines.

Geology

The Murphy claims are on the north side of the Moab anticline about 10 miles northwest of Moab, Utah. The sedimentary rocks in the immediate area of the claims range in age from Permian to Jurassic and consist of sandstone, shale, mudstone, limestone, and conglomerate (Fig. 2). The beds in this area strike N. 15° W. and dip about 15° to the southwest. The uranium mineralization occurs in sandstone and mudstone beds in lenses of Shinarump conglomerate.

The Cutler formation of Permian age is the oldest formation exposed in the immediate area of the claims. The Cutler formation is unconformably overlain by the Moenkopi formation of lower Triassic age. The Moenkopi is unconformably overlain by the Shinarump conglomerate and by the Chinle formation where the Shinarump is absent. The Shinarump conglomerate and the Chinle formation are of upper Triassic age. The Wingate sandstone of Jurassic(?) age conformably overlies the Chinle formation and is overlain by the Kayenta formation of Jurassic(?) age.

The Shinarump conglomerate is not present everywhere in the vicinity of the Murphy claims, due either to non-deposition or erosion. The Shinarump is

principally a light-gray to light-green conglomeratic sandstone, but it also contains some sandstone and sandy mudstone lenses.

The Moab Fault, a prominent northwest-trending normal fault with about 2,600 feet displacement, traverses the area about 3/4 to 1 mile northeast of the Murphy claims. The northeast side of the fault is down thrown.

Ore Deposits

On the north side of Seven Mile Canyon uranium ore bodies have been reported in both the Chinle and Shinarump formations, with locally high grade deposits in calcareous conglomerate of the Shinarump formation. On the south side of Seven Mile Canyon uranium mineralization was noted only in sandstone and sandy mudstone beds of the Shinarump conglomerate. The deposits on the Murphy claims are low grade and very discontinuous. The only uranium mineral identified was carnotite.

Uranium mineralization was noted by the examining geologists on four of Murphy's claims, the Copper No. 1, Copper No. 1A, Copper No. 1B, and Copper No. 3B, and reported by the applicant on a fifth claim, the Copper No. 7. On the Copper No. 1, Copper No. 1A, and Copper No. 1B claims the uranium occurs as unidentified uranium minerals principally disseminated in light-gray to light-green sandstone and sandy mudstone, and, to a minor extent, replaces carbonized woody material. On the Copper No. 3B claim the only uranium mineralization noted was a small carbonized log partially replaced by carnotite. The applicant reports that a similar log occurs on the Copper No. 7 claim.

The Copper No. 1 claim is the only claim with a production record. The applicant shipped a total of 101.93 tons of ore with an average grade of 0.27% U_3O_8 from an adit 60 feet long on this claim. The following production records seem to indicate that the applicant hand sorted the ore in order to maintain a commercial grade:

Date of Shipment	Tons	Percentage U_3O_8	Pounds U_3O_8
May and August, 1951	23.53	0.44	209.41
October, 1951	4.86	0.41	39.86
January, 1952	16.14	0.22	69.79
June and July, 1952	57.40	0.20	220.36

The ore occurred in a sandy mudstone bed about two feet thick. Apparently all of the commercial ore has been mined out because the examining geologists were unable to find any promising radioactive anomalies in the adit. One six-foot channel sample cut from the side of the adit 49 feet from the portal assayed 0.034% U_3O_8 and 0.01% V_2O_5.

Ore Reserves

The blocked out ore on the Copper No. 1 claim has been largely mined, and the remaining uranium-bearing material is too low grade to mine. Despite the fact that the applicant mined 100 tons of ore from this property, there is no apparent basis for inferring ore reserves beyond the present workings. The uranium showings on the other claims are too low grade and too discontinuous to permit calculation of inferred ore reserves on these properties.

Proposed Exploration

The applicant has proposed driving five 600 foot crosscuts on showings that he considers to be promising on the Copper No. 1, Copper No. 1A, Copper No. 3B (2 crosscuts), and Copper No. 7 claims, (fig. 3). The work as outlined by the applicant would cost a total of $79,030.00.

Under the applicant's proposal, crosscuts 4 and 5 on the Copper No. 3B and Copper No. 7 claims, respectively, would be driven at points where small carbonized logs partly replaced by carnotite crop out. In general, uranium-bearing logs are so erratically distributed throughout the Shinarump conglomerate that an exploration program involving the driving of drifts in search for "blind" logs has little geologic merit, however, the main purpose of the crosscuts is to establish possible ore trends or channels and to test the possibility of increased grade of ore at depth beyond the zone of weathering, down the dip of the ore-bearing horizon. Crosscuts proposed on the Copper No. 3A, 3B, 4A and Copper No. 7 claims do not appear to be as well located as the ones on the Copper No. 1, 1A, and 1B claims since the latter claims have had some production, and show possible occurrences of ore grade material.

All of the blocked out ore has been mined from the workings on the Copper No. 1 and No. 1A claims. There were only a few areas in the workings on these claims that showed ore of commercial grade, however, the entire production of 101.93 tons of ore averaging 0.27 percent U_3O_8 has come from one 5'x7' drift 60 feet long. This production amounts to 1.698 tons per linear foot of drift, which is excellent production for such a small area explored.

The two crosscuts proposed by the applicant on the Copper 1, and 1A claims appear to have a good chance of finding additional commercial ore, as well as establishing any possible ore trends. It is recommended that these two 600 foot crosscuts be driven as shown in fig. 3. However, the Atomic Energy Commission has recently begun exploratory work on nearby ground and is reported to have plans for diamond drilling the Copper Claims No. 1 and 1A, in the near future. As the A. E. C. drilling program will explore part of the area the applicant has proposed to do DMEA work on, it is recommended that the program outlined in this report be deferred until the A. E. C. drilling is well advanced. More promising areas may be discovered by the drilling and a more definite exploratory program can be set up.

Summary and Conclusions

The Murphy claims are underlain by the Moenkopi, Shinarump, and Chinle formations of Triassic age, and the Wingate and Kayenta formations of Jurassic(?) age. Uranium mineralization is present on some of the claims as carnotite partially replacing carbonized woody material in the Shinarump conglomerate, and as unidentified uranium minerals disseminated in a sandy mudstone lens of the Shinarump conglomerate.

The property has produced 101.93 tons of 0.27% U_3O_8 ore, all from an adit on the Copper No. 1 claim. There are only a few areas of commercial grade ore exposed on the applicant's claims at the present time.

The applicant has requested a loan of $79,030.00 to be used for driving five 600 foot crosscuts on what he considers to be promising showings on four claims. Three of the proposed crosscuts on the Copper Nos. 3A, 3B, 4A, and Copper No. 7 claims have little geologic merit at the present time.

Present ore showings in the workings on the Copper No. 1 and 1A claims are nottoo promising, but 60 feet of drift has produced 101.93 tons of ore averaging 0.27 percent U_3O_8. The two crosscuts proposed by the applicant on these claims seem warranted on the basis of the production record, but should be deferred, pending the results of the present A. E. C. diamond drilling program on the Copper claims, which will cover a portion of the area in the DMEA application. If the diamond drilling shows promising areas, then a more complete exploratory program can be planned by the applicant and the DMEA.

It is therefore recommended that any exploratory work as now planned for the Murphy claims by DMEA be withheld pending results of the diamond drilling program now in process by the Atomic Energy Commission.

U.S. DEPARTMENT OF THE INERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
URANIUM DOCKET NO. 2656

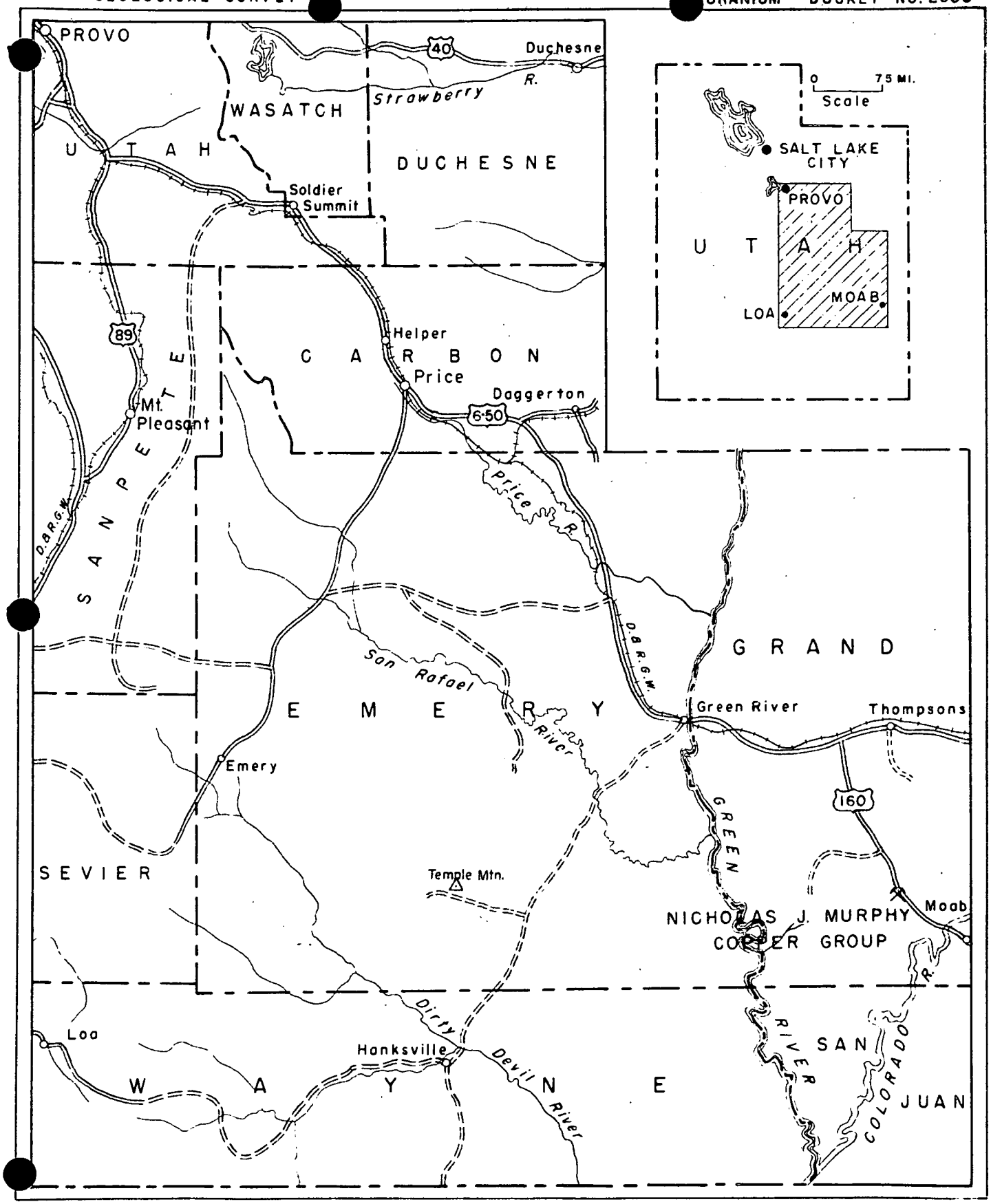
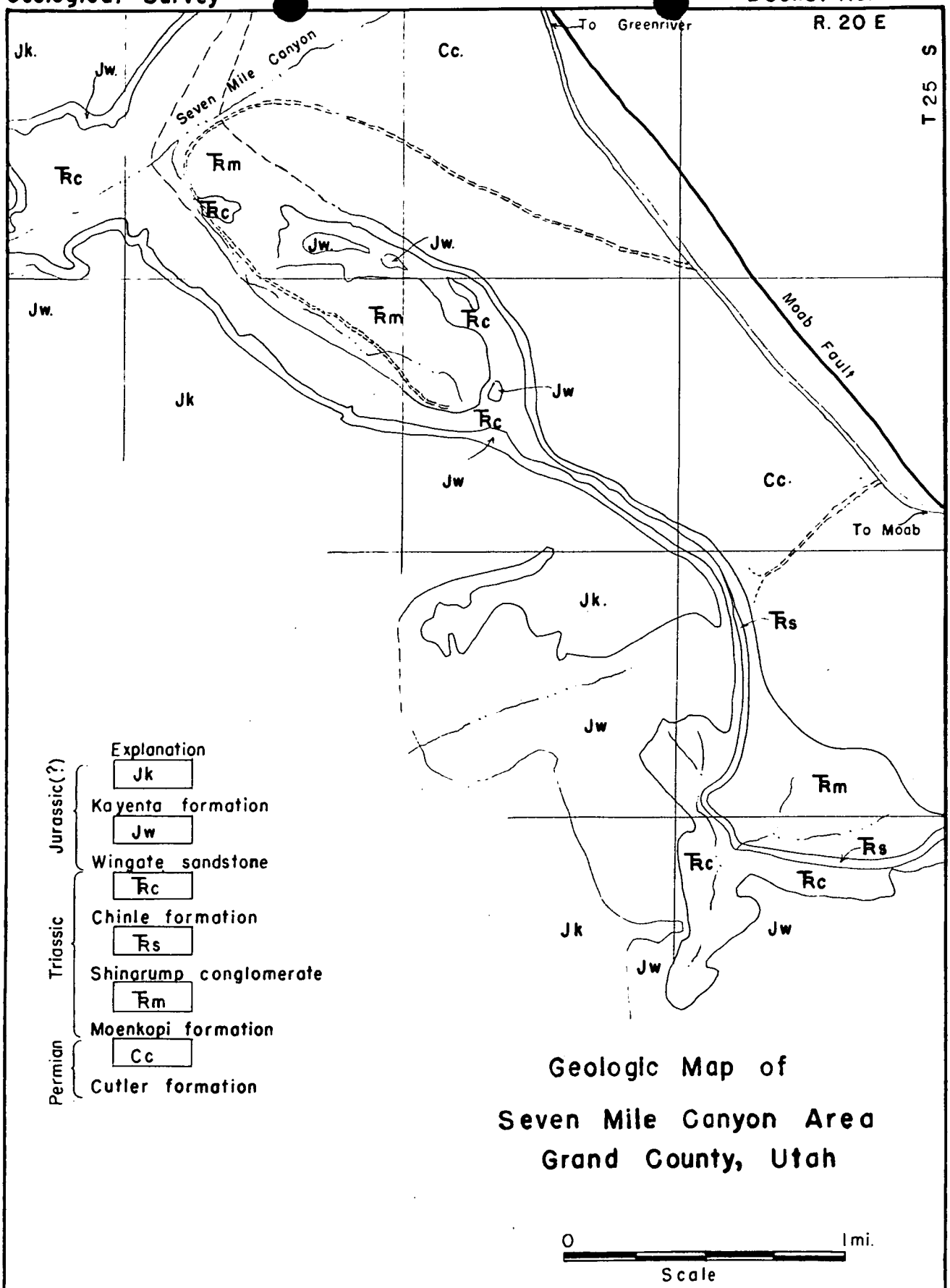


FIG. I INDEX MAP OF UTAH

0 5 10 15 20 MILES
Scale



After E.T. Knight, U. S. Geological Survey Bull. 908

FIG. 2

NICHOLAS J. MURPHY
COPPER GROUP CLAIMS
GRAND COUNTY, UTAH
DMEA-2656
Uranium

Engineering Report

By John F. Haynes
Mining engineer
Bureau of Mines

NICHOLAS J. MURPHY
COPPER GROUP CLAIMS
GRAND COUNTY, UTAH

CONTENTS

	Page
Engineering report	
Introduction	2
Location and physical features	2
History and production	3
Ownership and extent	3
Present status	4
Conclusions and recommendations	5

INTRODUCTION

An examination of Nicholas J. Murphy's Copper Group claims in Grand County, Utah, was made October 29 and 30, 1952, by John F. Haynes of the Bureau of Mines, and J. W. Hasler and C. R. Willden of the Geological Survey. Mr. Murphy accompanied the examining personnel to the properties.

The purpose of the examination was the evaluation of the claims for a DMEA exploratory loan application. The cost of the proposed exploratory program was estimated by the applicant to be $79,030.

LOCATION AND PHYSICAL FEATURES

The Copper Group of claims is located approximately 10 miles northwest of Moab, Utah, near U. S. Highway 160. The nearest and most accessible group of claims, the South Group, is less than 1 mile west of the highway. This group is reached by a dirt road from the highway to the cliff where the workings are located, then by a road cut into the rim for the remaining distance. The North Group is reached via Seven Mile and Dry Canyons, the road leading from Dry Canyon to the properties also being cut into the rim. One of the claims in this group is reached by the road. The others are inaccessible to vehicles at this time, although the owners intend to complete the road to the other claims.

The two groups of claims which may be benefitted by the proposed exploration program are located in Sections 10, 11, 13, and 14, T. 25 S., R. 20 E., S.L.B. & M. The groups are not contiguous.

The nearest source of supplies and labor is Moab, Utah. The railroad shipping point is Crescent Junction, 27 miles to the north. Ore-purchasing stations are at Thompson, 33 miles to the north, and Monticello, 67 miles to the south. The purchasing station to which ores will be sold will depend upon grade, type of mineralization, and impurities.

HISTORY AND PRODUCTION

The Copper Group of claims was located by Nicholas J. Murphy, Gordon Babble, and Samuel R. Zimmerman April 6, 1948. Amended locations were filed September 28, 1951. A small tonnage of ore has been produced from the South Group, the total reported to be 101.93 tons averaging .27 percent U_3O_8. The uranium recovered from the ore amounted to 559.42 pounds. Much of this production resulted from road construction along the rim of the Shinarump formation, although some was mined from an adit which, at the time of the examination, had been driven 60 feet into the cliff.

At the present time production is negligible, the operator apparently awaiting the outcome of the DMEA application.

OWNERSHIP AND EXTENT

The Copper Group consists of 15 unpatented mining claims which are located in two separate groups known as the South Group and the North Group. The claims are located in Sections 10, 11, 13, and 14, T. 25 S., R. 20 E. The claims are controlled by the above-mentioned partnership. They are recorded in the office of the County Recorder in Moab, Grand County, Utah, and are listed as follows:

Name of claim	Source of information
Copper No. 1	Book 9K, page 326
Copper No. 1A	Book 9K, page 337
Copper No. 1B	Book 9K, page 338
Copper No. 2	Book 9K, page 339
Copper No. 2A	Book 9K, page 340
Copper No. 2B	Book 9K, page 341
Copper No. 3	Book 9K, page 342
Copper No. 3A	Book 9K, page 343
Copper No. 3B	Book 9K, page 344
Copper No. 3C	Book 9K, page 345
Copper No. 4	Book 9K, page 346
Copper No. 4A	Book 9K, page 347
South Fork No. 1	Book 9K, page 435
Azurite No. 1	Book 9K, page 335

PRESENT STATUS

At the present time, the workings on the Copper Group consist of a few hundred feet of exposed rim plus two short adits in the South Group. These adits are 60 feet and 5 feet in length, respectively, and were started on the most promising mineralization exposed during the road construction. Some ore was sorted from the adits and mixed with that obtained from the rim stripping to make up the 101.93 tons of ore reported above. Samples were taken from the longer of the two adits and from the dump on the rim during the present examination period. The sample taken from the adit assayed 0.034 percent U_3O_8 and 0.01 percent V_2O_5 over a width of 6 feet. No particular concentration was noted in this total width of the sample. The sample taken from the sorted ore on the dump assayed 0.112 percent U_3O_8 and 0.01 percent V_2O_5. Mr. Murphy is working in the main adit, and erratic mineralization is present in the face.

The Atomic Energy Commission began a diamond drilling program in the Seven Mile area to the north of the Copper Group on November 3, 1952. However, this agency apparently does not consider the Copper claims to have sufficient geologic merit to warrant exploratory work south of Seven Mile Canyon.

CONCLUSIONS AND RECOMMENDATIONS

A small tonnage of ore has been produced from the South Group of claims by hand sorting the low-grade uranium-bearing sandstone and conglomerate. However, geologic evidence indicates the improbability of discovery of significant ores by performance of exploratory work proposed by the applicant. It is therefore recommended by the examining geologists and engineer that the loan request be denied.

FILE COPY
SURNAME:
700

Schmidt
Ellis
Hymm
Lemmon
Miller

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

AUG 28 1952

Mr. Nicholas J. Murphy
P. O. Box 372
Moab, Utah

Re: Docket No. DMA-2656 (Uranium)
Seven Mile District
Moab, Utah

Dear Mr. Murphy:

The application for assistance in exploring your property in Grand County, Utah, under the above captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. Your application has been referred for a field examination to the Executive Officer of Region IV at the following address:

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

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

Sincerely yours,

C. O. Mittendorf (for) J.N. 8-28-52

Acting Administrator

FESchmidt/jem
8/26/52
cc to: Adm. Reading File
Docket
Messrs. Ellis
Schmidt
Field Team, Region IV (2)

FILE COPY
SURNAME:

Schmidt
Ellis
Miller

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

AUG 28 1952

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

Re: Docket No. [illegible]-2656 (Uranium)
Nicholas J. Murphy
Seven Mile District
Moab, Utah

Dear Mr. King:

The above captioned application is referred to you for a Field Team report.

Memorandums from H. D. Keiser and A. P. Butler (dated August 19 and 20 respectively) members of the Uranium Commodity Committee, are so constructive that it is deemed advisable to enclose copies for your consideration.

Sincerely yours,

D. F. Keller (JHB)
ACTING Chairman, Operating Committee

Enclosures

F.Schmidt/jem 8/26/52
cc to: Adm. Reading File
Docket
Messrs.H.D.Keiser-1347
A.P.Butler-3206 GSA
Ellis
Schmidt
Opr. Com.
Field Team, Region IV

Concurred:
C. A. Johnson (JHB)
Member, Bureau of Mines

D. M. Lemmon (JHB)
Member, Geological Survey

P.N. 8-28-52

8/21/52 gla SD

IN REPLY REFER TO:
G:TJT CO:AFB

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

August 20, 1952

Memorandum

To: Ernest Wm. Ellis, DMA Member, Uranium Commodity Committee

From: A. F. Butler, Jr., USGS Member, Uranium Commodity Committee

Subject: Application for exploration assistance, DMA Docket 2656, Nicholas J. Murphy, P. O. Box 372, Moab, Utah.

The above application has been received and I have discussed it informally with Mr. H. D. Keiser, Bureau of Mines member of the Commodity Committee. The claims for which development aid is requested lie within an area investigated by the U. S. Atomic Energy Commission and described in the following report:

Droullard, R. F. and Jones, E. E., Geology of the Seven Mile Canyon Uranium Deposits, Grand County, Utah: U.S.A.E.C. RMO - 815, April 28, 1952.

Information contained in this report indicates that the area involved in this application may be favorable for deposits of uranium ore. I recommend, therefore, that the application be submitted to the field team for review and appraisal.

In answer to question 4 c the applicant states that "the combined thickness of the Wingate and the Chinle formations exceed 600 feet. Core drilling is not believed feasible." Droullard and Jones, however, indicate a combined thickness of these formations of approximately 400 feet, in the vicinity of Seven Mile Canyon, Nash~~ington~~. It is also suggested by Droullard and Jones that angle or horizontal core drilling be used in a manner outlined by Morehouse in Fan Pattern drilling, U.S.A.E.C. Grand Junction Exploration Branch, G.J.E.B. Technical Memorandum No. 1, 1952, for the most effective method of delimiting the ore bodies.

I suggest, therefore, that the above be taken into consideration in the field examination and that the field team consult with the staff of the Geological Survey and with Mr. Droullard and Mr. Jones of the Atomic Energy Commission at Grand Junction to gain the benefit of knowledge and information they may have about this property.

for Arthur F. Butler, Jr.

Attachment - DMA Application 2656
Copy to: Ernest Wm. Ellis

8/21/single 3D

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

August 19, 1952

Memorandum

To: Ernest William Ellis, DMEA Member,
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member,
Uranium Commodity Committee

Subject: DMEA Docket 2656, Nicholas J. Murphy, P. O. Box 372,
Moab, Utah.

I have reviewed the application included in the subject docket, discussed the application with Robert Schnable, Acting Geological Survey Member, and consulted a copy of AEC report RMO-815, "Geology of the Seven Mile Canyon Uranium Deposits, Grand County, Utah," by Robert F. Droullard and Everett E. Jones, which report pertains to the general area involved under the application.

Comparison of the maps in the aforesaid report with that accompanying the application indicates that the actual presence of the Wingate formation is questionable over most of the area involved in the crosscutting proposed in the application. Furthermore, the report indicates that horizontal or angle diamond drilling should be considered in any proposed exploration in the general area.

It is recommended that the application be referred to the field team for investigation and report, with the suggestion that the team consult Mr. Lowell Hilpert, Geological Survey, and Mr. Ernest Gordon, Atomic Energy Commission, Grand Junction, Colo.

It is further recommended that the field team be asked to report specifically as to (1) the merit of exploration in the general area by crosscutting as opposed to diamond drilling, either vertical or horizontal, (2) the probable economic return to the applicant in the event he would bring into production high-lime uranium ore which seems to prevail in the area, and (3) the advisability of initially considering all the exploration proposed under the application.

H. D. Keiser

H. D. Keiser

Attachment

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-26J6
Metal or Mineral
Date Received 8-18-52
Estimated Cost
Participation (Government %)

AUG 18 1952

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address:

Nicholas J. Murphy
P. O. Box 372
Moab, Utah Phone 2333

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

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

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

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

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated July 30, 1952, 195...

Nicholas Murgaky
(Applicant)

By .....

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

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

- Answers to Questions - Form MF-103 (Revised April 1952)

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

(1).

a). Nicholas J. Murphy
P. O. Box 372
Moab, Utah

b). A partnership.

c). Not applicable.

d). Partnership consists of:

Nicholas J. Murphy
P. O. Box 372
Moab, Utah

Samuel R. Zimmerman
14321 East Ramona Boulevard
Baldwin Park, California
Tel. Fleetwood 7-1296

Gordon Babbel
Moab, Utah.

(3).

a). Reference is made to the attached map marked Exhibit "A". On the map within the shaded lines are shown the claims which may be benefitted by the exploration and are, therefore, included. There are two groups of claims involved. The groups are not contiguous. The map shows the proposed X-cuts on each group in dashed lines.

The legal description of the claims involved in each group is as follows:

<u>South Group (3 Unpatented Claims)</u>:

Copper No. 1B claim: Beginning at discovery stake, thence S 61-20E, 40 feet to the east end center stake, thence S 28-40 W, 160 feet to the SE. cor. No. 1, thence N 61-20 W, 1500 feet to the SW cor. No. 2, thence N 28-40 E, 300 feet to the west end center stake, thence N 28-40 E, 300 feet to the NW. cor. No. 3, thence S 61-20 E, 1500 feet to the NE cor. No. 4, thence S 28-40 W, 160 feet back to the east end center stake or to the point of beginning. The discovery stake of this claim is tied into Section corner 1, 2, 11 and 12, T25 S, R 20 E, S. L. B & M. Book 9K, Page 338 Grand County, Utah

Copper No. 1 claim: Beginning at Discovery Stake, thence S 73-30E, 45 feet to the east end center stake, thence S 16-30 W, 300 feet to the SE cor. No. 1, thence N 73-30 W. 1500 feet to the SW. cor.No. 2, thence N 16-30 E, 300 feet to the west end center stake, thence N 16-30 E, 300 feet to the NW. Cor. No. 3, thence S 73-30 E, 1500 feet to the NE cor. No. 4, thence S 16-30 W, 300 feet to the east and center stake or the point of beginning. The discovery stake of this claim is tied into Section Corner 1,2, 11 & 12, T 25 S, R 20 E. S. L. B & M. Book 9K,Page 326, Grand County, Utah.

Copper No. 1A claim: Beginning at Discovery Stake, thence S 89-15E, 10 feet to the east end center stake, thence S 0-10 W, 300 feet to the SW cor. No. 1, thence N 89-15 W, 1500 feet to the SW cor. No. 2, thence N 0-10E, 300 feet to the west end center stake, thence N 0-10 E, 300 feet to the NW. cor No. 3, thence S 89-15E, 1500 feet to the Ne. cor. No. 4, thence S 0-10 W, 300 feet back to the point of beginning or the east end center stake. The discovery stake of this claim is tied into Section Corner 1, 2, 11 & 12, T25S, R20E. S. L. B & M. Book 9K, Page 337. Grand County, Utah.

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

North Group (12 claims):

Copper No. 2A claim: Beginning at Discovery stake, thence N33-45E 78 feet to the north end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S33-45W, 1500 feet to the SE, corner No. 2, thence N56-15W, 300 feet to the South end center stake, thence N56-15W, 300 feet to the SW, cor. No 3, thence N35-45E, 1500 feet to the NW cor. No. 4, thence S56-15E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 340, Grand County, Utah.

Copper No. 2 claim: Beginning at Discovery Stake, thence N33-45E, 192 feet to the North end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S35-45W, 1500 feet to the SE corner No. 2, thence N56-15W, 300 feet to the South end center stake, thence N56-15W, 300 feet to the SW corner No. 3, thence N33-45 E, 1500 feet to the NW,corner No. 4, thence S56-15E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 339, Grand County, Utah.

Copper No. 2B claim: Beginning at Discovery Stake, thence N33-45E, 144 feet to the North end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S33-45W, 1500 feet to the SE corner No. 2, thence N56-15E, eoo feet to the South end center stake, thence N56-15E, 300 feet to the SW corner No. 3, thence N33-45E, 1500 feet to the NW corner No. 4, thence S56-15E, 300 feet back to the east end center stake of the point of beginning. Book 9K, Page 341, Grand County, Utah.

Copper No. 3 claim: Beginning at Discovery stake, thence N33-45E, 189 feet to the north end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S33-45W, 1500 feet to the SE corner No. 2, thence N56-15W, 300 feet to the south end center stake, thence N56-15W 300 feet to the SW, corner No. 3, thence N33-45E, 1500 feet to the NW corner No. 4, thence S56-15E, 300 feet to the north end center stake or to the point of beginning. Book 9K, Page 342, Grand County, Utah.

Copper No. 3C claim: Beginning at Discovery stake, thence N63-10E, 75 feet to the east end center stake, thence S26-30E, 300 feet to the SE corner No. 1, thence S63-10W, 1500 feet to the SW corner No. 2, thence N26-50W, 300 feet to the west end center stake, thence N26-50W 300 feet to the NW corner No. 3, thence N63-10E, 1500 feet to the NE corner No. 4, thence S26-50E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 345, Grand County, Utah.

Copper No. 3A claim: Beginning at Discovery stake, thence S87-15E, 100 feet to the east end center stake, thence S2-45W, 300 feet to the SE corner No. 1, thence N87-15W 1500 feet to the SW corner No. 2, themce N2-45E 300 feet to the west end center stake thence N2-45E, 300 feet to the NW corner No. 3, thence S87-15E, 1500 feet to the NE corner No. 4, thence S2-45W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 343, Grand County, Utah.

Copper No. 3B claim: Beginning at Discovery stake, thence N87-15W, 90 feet to the east end center stake, thence S2-45W, 300 feet to the SE corner No. 1, thence N87-15W, 1500 feet to the SW corner No. 2, thence N2-45E, 300 feet to the west end center stake, thence N2-45E, 300 feet to the NW corner No. 3, thence S87-15E, 1500 feet to the NE corner No. 4, thence S2-45W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 344, Grand County, Utah.

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

Copper No. 4A claim. Beginning at Discovery stake, thence N72-45E, 10 feet to the east end center stake, thence S17-15E, 300 feet to the SE corner No. 1, thence S72-45W, 1500 feet to the SW corner No. 2, thence N17-15W, 300 feet to the west end center stake, thence N17-15W, 300 feet to the NW, corner No. 3, thence N72-45E, 1500 feet to the NE corner No. 4, thence S17-15E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 347, Grand County, Utah.

Copper No. 4 claim: Beginning at Discovery stake, thence S31-32E, 40 feet to the south end center stake, thence S59-28W, 300 feet to the SW corner No. 1, thence N31-32W, 1500 feet to the NW corner No. 2, thence N59-28E, 300 feet to the North end center stake, thence N59-28E, 300 feet to the NE corner No. 3, thence S31-32E, 1500 feet to the SE corner No. 4, thence S59-28W, 300 feet to the west end center stake or back to the point of beginning. Book 9K, Page 346, Grand County, Utah.

South Fork No. 1 claim: Beginning at Discovery stake, thence N2-45E, 30 feet to the north end center stake, thence S87-15W 300 feet to the NE corner No. 1, thence S2-45W, 1500 feet to the SE corner No.2, thence N87-15W, 300 feet to the south end center stake, thence N87-15W 300 feet to the SW corner No. 3, thence N2-45E, 1500 feet to the NW corner No. 4, thence S87-15E, 300 feet to the east end center stake or to the point of beginning. Book 9K, Page 435, Grand County, Utah.

Copper No. 7 claim: Beginning at Discovery stake, thence S65-0E, 350 feet to the east end center stake, thence S25-0W, 300 feet to the SE corner No. 1, thence N65-0W, 1500 feet to the SW corner No.2, thence N25-0E, 300 feet to the west end center stake, thence N25-00E, 300 feet to the NW corner No. 3, thence S65-00E, 1500 feet to the NE corner No. 4, thence S25-00W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, 334, Grand County, Utah.

Azurite No. 1 claim: Beginning at Discovery stake, thence S65-00E, 50 feet to the east end center stake, thence S25-00W, 300 feet to the SW corner No. 1, thence N65-00W, 1500 feet to the SW corner No. 2, thence N25-00E 300 feet to the west end center stake, thence N25-00E 300 feet to the NW corner No. 3, thence S65-00E, 1500 feet to the NE corner No. 4, thence S25-00W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 335, Grand County, Utah.

The point of discovery on each of the above claims is tied into the corner common to sections 1, 2, 11 and 12. T20E. S.L.B.M.

b). The claims were only recently located and are not known under any particular mine name.

c). The partnership controls the above claims through right of location. None of the claims are patented.

d). Not applicable.

e). There are no known liens or encumbrances existing on the claims.

f). Requested information added above.

(4).

a). Reference is made to the attached map marked Exhibit "A" On this map is shown the two non-contiguous groups of claims which Applicant proposes to explore with five X-cuts each 600 feet long. The proposed exploration X-cuts are indicated on the map in dashed lines and numbered from one to five, respectively.

[illegible]

[illegible]

[illegible]

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

On the South Group of claims the Applicant has exposed the mineralized bed with dozer cuts for a distance of 400 feet. All of the exposed outcrop is radioactive with certain sections indicating commercial ore. Three short tunnels have been started on the better ore showings. Total length of the tunnels is approximately 50 feet. From the outcrop and the tunnels approximately 100 tons of commercial ore has been produced. A mine access road to this section of the outcrop has been constructed. Mine workings are dry and readily accessible for examination.

b). Past production as noted above has amounted to approximately 100 tons assaying 0.25% U_3O_8.

Current production is negligible.

On the North Group of claims exploration consists only of a mine access road constructed to the rim. There still remains 1000 feet of additional access road to be constructed in order to reach the portals of the proposed tunnels. The 1000 feet of proposed access road is shown on the map and is necessary in order to reach the better ore showings on the rim.

Ore reserves are difficult to estimate and are therefore limited to a few hundred tons.

c). As indicated on the attached map marked Exhibit "A" in dashed lines, a mineralized bed of Shinarump outcrops. The bed is at the base of the Chinle formation and rests on top of the Moenkopi. The Shinarump bed where exposed, consists of a rather coarse grained vitreous sandstone. Trash carbon and trees were noted. The Shinarump rests on a bed of purple clay approximately 4 feet thick. The average thickness of the Shinarump bed is 4 feet. All mineralization may not be confined to the Shinarump since field examinations indicate the possibility of ore higher in the Chinle beds.

The important uranium mineral in the ore is pitchblende, probably in the form of minute particles. The leached outcrop shows several uranium salts. Copper carbonates were noted. The outcrop also shows the presence of vanadium in small amounts.

Major Faulting has occured one half mile to the east. The beds within the claims have been fractured more or less parallel to the major fault. The writer, Leo J. Coady, Consulting Mining Engineer, who prepared this application, is of the opinion that the fractures influenced ore deposition. Therefore, the proposed exploration has been laid out so as to take full advantage of structural features. The base of the Wingate is shown on the map as a dotted line. The combined thickness of the Wingate and the Chinle formations exceed 600 feet. Core drilling is not believed feasible. Therefore, in lieu of a core drilling program, Applicant is requesting a loan to drive the exploratory X-cuts as indicated on the attached map.

No geologic or engineering reports have been made on the property.

d). The east boundary of the South Group of claims is only one half mile off Highway 160 at a point eight miles north of Moab, Utah. The claims are 58 miles from the Government processing plant at Monticello, Utah. Mining supplies are available at both Moab and Monticello.

e). An ample supply of manpower is available including Indians from the Reservation.

(5).

a). Uranium and vanadium minerals.

b). Reference is made to the attached map marked Exhibit "A".

[illegible]

[illegible]

[illegible]

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

The map shows the claims in the two groups, the proposed exploration X-cuts, the proposed access road (1000 feet) and the section of the rim on the South Group which has been prospected. The beds dip approximately 8 degrees to the west. Therefore, proposed X-cuts Nos. 1 and 2 will be driven down grade. It is planned to carry the headings in the Shinarump with the floor of the X-cuts on the purple clay of the Moenkopi contact.

Proposed X-cuts Nos. 3 and 5 in the North Group of claims will be driven level since they will be normal to the strike of the beds. Proposed X-cut No. 4 will be up grade. In these three X-cuts it is also planned to carry the headings in the Shinarump with the floor of the X-cuts on the purple clay of the Moenkopi contact.

SouthGroup, Proposed X-cut No.1 - 600 ft.		
" " " " No.2 - 600 ft.		1200 ft.
North Group, Proposed X-cut No.3 - 600 ft.		
" " " " No.4 - 600 ft.		
" " " " No.5 - 600 ft.		1800 ft.
	Total -	3000 ft.
	Access Road -	1000 ft.

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

d). Mr.Nicholas J. Murphy, one of the partners, will direct the operations. Mr.Leo J. Coady will probably act as Consultant. Field Engineer on the job has not yet been chosen.

Mr.Murphy, who will direct the operations, has had several years of uranium mining experience on the Colorado Plateau as miner, mucker, etc. He has spent much time prospecting in the area and has located many claims in the Shinarump, some of which he is presently operating. Mr. Murphy is married and with his family lives at Moab, Utah.

Mr. Gordon Babbel, a partner, is an expert in the field of electronics. Sponsored by Minerals Engineering Company of Grand Junction, Colorado, he manufactures his own Geiger counter which is now on sale.

Mr. Samuel R. Zimmerman, the other partner, is a practicing attorney in Baldwin Park, California.

(6).
a), b), c), d), e), f),and g):

Operator proposes to rent the equipment necessary to perform the exploration work with rental expenses a direct cost to the exploration project. For Superintendent's use and for rustling supplies to the project, Applicant will furnish his Ford automobile at the "use allowance" cost to the project.

Costs are predicated on the 5 X-cuts operating simultaneously; Total footage - 3000 feet; Size 6' X 8' (rock breakage); Each X-cut 600' long; Advance 25 feet/dy. in the five X-cuts; at 24 working days/month; Advance 600' per month; Total time required 5 months. In driving the drifts applicant proposes to use mucking machines at the face and transport the muck with shuttle cars. No rails will be required.

Nicholas J.Murphy
P.O.Box 372
Moab, Utah
Phone 2333

COSTS:

	(24 dys) PER MONTH	5 MONTHS	
Direct LaborCosts:			
10- Miners @ $18/dy -	$4320	$21600	
1 - Truck Driver (water truck) @ $12/dy -	288	1440	$23040
Indirect Labor Costs:			
1- Supt. & Engineer (combined) @ $700/mo -	700	3500	
Consulting Services @ $500/mo	500	2500	
Accounting Expenses (part time @ $300/mo)-	300	1500	
Assaying Expenses (part time @ $300/mo)-	300	1500	
Payroll Taxes etc. (10%) -	640	3200	$12200
Equipment rental & cost of supplies:			
2-210 cu.ft. Compressors (cost $12000, rental @ $600/mo) -	600	3000	
Operating exp. (gas, oil, repairs & services @ $240/mo. for each) -	480	2400	
1-105 cu. ft. Compressor (cost $4000, rental @ $150/mo.) -	150	750	
Operating exp. (gas, oil, repairs & services @ $150/mo.) -	150	750	
3- Shuttle car trammers (cost $6000, rental @ $375/mo.) -	375	1875	
Operating exp. (gas, oil & services @ $720/mo -	720	3600	
5- Jackhammers & Jacklegs (cost $3000, rental @ $300/mo.) -	300	1500	
Drill steel, bits & services -	650	3250	
3- Mucking machines, crawler mounted (cost $12000, rental @ $600/mo.) -	600	3000	
Operating exp. (oil & services)	200	1000	
5- Blowers (ventilation) cost $3500, rental @ $375/mo. -	375	1875	
3000' - 12" fan pipe @ 90¢/ft (salvage item)	-	2700	
1- Water truck with 500 gal. tank (cost $1800 rental @ $150/mo.) -	150	750	
Operating exp. (gas, oil & services) -	208	1040	
1- John Deere Loader, use at portals (cost $3200, rental for one month use $200) -	200	200	
Operating exp. (gas, oil for 1 month) -	200	200	
3000' - Black iron pipe (air 2" Salvage item)-		2250	
3000' - 1" iron pipe (water) " " -		1800	
Air & water hoses (salvage item) -		400	
1- Ford car, for hauling supplies, cost $2300 use allowance @ 1/60 cost/mo. -	38	190	
Operating exp. @ 10¢/mi (1500 mi/mo) -	150	750	
Carbide, powder, caps & fuse -	1050	5250	
50 - Mine stulls (16' long) -		200	
2000 Board feet 2" mine plank, r. lengths	-	200	
Supply of small mine tools -		500	
500 gal. water tank for mine drill water -			$39630
Total estimated cost for driving 3000' of X-cuts -			$74870
Total estimated cost per foot - $24.95			

Access road costs: (1000' of road, Time required 1 month)

1- TD24, Int. Dozer (cost $30000,rental @ $100/dy) 30 dys @ $100/dy -	$3000	
1- Cat operator @ $20/dy - (30 dys @ $20/dy) -	600	
Taxes (10%) -	60	
Removal of hard rock if encountered -	500	4160
Total estimated cost of project - - -		$79030

Applicant's share (10% of $79030) or $7903.

*
*

3,000
2,400
750
750
1,875
3,600
1,500
3,250
3,000
1,000
1,875
2,700
750
1,040
200
200
2,250
1,800
400
190
750
5,250
200
200
500

39,430 *
*

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

h). While it is not anticipated, should water be encountered in either of the X-cuts on the South Group, a contingency allowance of $3000 is requested to provide pumping and necessary water removal facilities.

(7).

a). Applicant is prepared to furnish his share ($7903) of the cost of the project.

b). Applicant is prepared and if so requested, will deposit his share ($7903) of the cost of the project in any bank designated by Defense Minerals Exploration Administration.

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

August 19, 1952

Memorandum

To: Ernest William Ellis, DMEA Member,
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member,
Uranium Commodity Committee

Subject: DMEA Docket 2656, Nicholas J. Murphy, P. O. Box 372,
Moab, Utah.

I have reviewed the application included in the subject docket, discussed the application with Robert Schnable, Acting Geological Survey Member, and consulted a copy of AEC report PMO-815, "Geology of the Seven Mile Canyon Uranium Deposits, Grand County, Utah," by Robert F. Droullard and Everett E. Jones, which report pertains to the general area involved under the application.

Comparison of the maps in the aforesaid report with that accompanying the application indicates that the actual presence of the Wingate formation is questionable over most of the area involved in the crosscutting proposed in the application. Furthermore, the report indicates that horizontal or angle diamond drilling should be considered in any proposed exploration in the general area.

It is recommended that the application be referred to the field team for investigation and report, with the suggestion that the team consult Mr. Lowell Hilpert, Geological Survey, and Mr. Ernest Gordon, Atomic Energy Commission, Grand Junction, Colo.

It is further recommended that the field team be asked to report specifically as to (1) the merit of exploration in the general area by crosscutting as opposed to diamond drilling, either vertical or horizontal, (2) the probable economic return to the applicant in the event he would bring into production high-lime uranium ore which seems to prevail in the area, and (3) the advisability of initially considering all the exploration proposed under the application.

Signed

H. D. Keiser

Attachment

HDKeiser:hak

Copy to: Minerals Division
Rare & Precious Metals Br.
H. D. Keiser
FILES

FILE COPY
Surname:

1 Clive
Keiser

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

August 19, 1952

Memorandum

To: Ernest William Ellis, DMEA Member,
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member,
Uranium Commodity Committee

Subject: DMFA Docket 2656, Nicholas J. Murphy, P. O. Box 372,
Moab, Utah.

I have reviewed the application included in the subject docket, discussed the application with Robert Schnable, Acting Geological Survey Member, and consulted a copy of AEC report RMO-815, "Geology of the Seven Mile Canyon Uranium Deposits, Grand County, Utah," by Robert F. Droullard and Everett E. Jones, which report pertains to the general area involved under the application.

Comparison of the maps in the aforesaid report with that accompanying the application indicates that the actual presence of the Wingate formation is questionable over most of the area involved in the crosscutting proposed in the application. Furthermore, the report indicates that horizontal or angle diamond drilling should be considered in any proposed exploration in the general area.

It is recommended that the application be referred to the field team for investigation and report, with the suggestion that the team consult Mr. Lowell Hilpert, Geological Survey, and Mr. Ernest Gordon, Atomic Energy Commission, Grand Junction, Colo.

It is further recommended that the field team be asked to report specifically as to (1) the merit of exploration in the general area by crosscutting as opposed to diamond drilling, either vertical or horizontal, (2) the probable economic return to the applicant in the event he would bring into production high-line uranium ore which seems to prevail in the area, and (3) the advisability of initially considering all the exploration proposed under the application.

Signed

H. D. Keiser

Attachment
HDKeiser:hak

Copy to: Minerals Division
Rare & Precious Metals Br.
H. D. Keiser
FILES

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-2656
Metal or Mineral
Date Received 8-18-52
Estimated Cost
Participation (Government %)

AUG 18 1952

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address:

Nicholas J. Murphy
P. O. Box 372
Moab, Utah Phone 2333

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

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

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

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

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated July 30, 1952, 195...

Nicholas Murphy
(Applicant)

By.....

.....

.....

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

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

- Answers to Questions - Form MF-103 (Revised April 1952)

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

(1).

a). Nicholas J. Murphy
P. O. Box 372
Moab, Utah

b). A partnership.

c). Not applicable.

d). Partnership consists of:

Nicholas J. Murphy
P. O. Box 372
Moab, Utah

Samuel R. Zimmerman
14321 East Ramona Boulevard
Baldwin Park, California
Tel. Fleetwood 7-1296

Gordon Babbel
Moab, Utah.

(3).

a). Reference is made to the attached map marked Exhibit "A". On the map within the shaded lines are shown the claims which may be benefitted by the exploration and are, therefore, included. There are two groups of claims involved. The groups are not contiguous. The map shows the proposed X-cuts on each group in dashed lines.

The legal description of the claims involved in each group is as follows:

<u>South Group (3 Unpatented Claims)</u>:

Copper No. 1B claim: Beginning at discovery stake, thence S 61-20E, 40 feet to the east end center stake, thence S 28-40 W, 160 feet to the SE. cor. No. 1, thence N 61-20 W, 1500 feet to the SW cor. No. 2, thence N 28-40 E, 300 feet to the west end center stake, thence N 28-40 E, 300 feet to the NW. cor. No. 3, thence S 61-20 E, 1500 feet to the NE cor. No. 4, thence S 28-40 W, 160 feet back to the east end center stake or to the point of beginning. The discovery stake of this claim is tied into Section corner 1, 2, 11 and 12, T25 S, R 20 E, S. L. B & M. Book 9K, Page 338 Grand County, Utah

Copper No. 1 claim: Beginning at Discovery Stake, thence S 73-30E, 45 feet to the east end center stake, thence S 16-30 W, 300 feet to the SE cor. No. 1, thence N 73-30 W. 1500 feet to the SW. cor.No. 2, thence N 16-30 E, 300 feet to the west end center stake, thence N 16-30 E, 300 feet to the NW. Cor. No. 3, thence S 73-30 E, 1500 feet to the NE cor. No. 4, thence S 16-30 W, 300 feet to the east and center stake or the point of beginning. The discovery stake of this claim is tied into Section Corner 1,2, 11 & 12, T 25 S, R 20 E. S. L. B & M. Book 9K,Page 326, Grand County, Utah.

Copper No. 1A claim: Beginning at Discovery Stake, thence S 89-15E, 10 feet to the east end center stake, thence S 0-10 W, 300 feet to the SW cor. No. 1, thence N 89-15 W, 1500 feet to the SW cor. No. 2, thence N 0-10E, 300 feet to the west end center stake, thence N 0-10 E, 300 feet to the NW. cor No. 3, thence S 89-15E, 1500 feet to the Ne. cor. No. 4, thence S 0-10 W, 300 feet back to the point of beginning or the east end center stake. The discovery stake of this claim is tied into Section Corner 1, 2, 11 & 12, T25S, R20E. S. L. B & M. Book 9K, Page 337. Grand County, Utah.

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

North Group (12 claims):

Copper No. 2A claim: Beginning at Discovery stake, thence N33-45E 78 feet to the north end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S33-45W, 1500 feet to the SE, corner No. 2, thence N56-15W, 300 feet to the South end center stake, thence N56-15W, 300 feet to the SW, cor. No 3, thence N35-45E, 1500 feet to the NW cor. No. 4, thence S56-15E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 340, Grand County, Utah.

Copper No. 2 claim: Beginning at Discovery Stake, thence N33-45E, 192 feet to the North end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S35-45W, 1500 feet to the SE corner No. 2, thence N56-15W, 300 feet to the South end center stake, thence N56-15W, 300 feet to the SW corner No. 3, thence N33-45 E, 1500 feet to the NW,corner No. 4, thence S56-15E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 339, Grand County, Utah.

Copper No. 2B claim: Beginning at Discovery Stake, thence N33-45E, 144 feet to the North end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S33-45W, 1500 feet to the SE corner No. 2, thence N56-15E, eoo feet to the South end center stake, thence N56-15E, 300 feet to the SW corner No. 3, thence N33-45E, 1500 feet to the NW corner No. 4, thence S56-15E, 300 feet back to the east end center stake of the point of beginning. Book 9K, Page 341, Grand County, Utah.

Copper No. 3 claim: Beginning at Discovery stake, thence N33-45E, 189 feet to the north end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S33-45W, 1500 feet to the SE corner No. 2, thence N56-15W, 300 feet to the south end center stake, thence N56-15W 300 feet to the SW, corner No. 3, thence N33-45E, 1500 feet to the NW corner No. 4, thence S56-15E, 300 feet to the north end center stake or to the point of beginning. Book 9K, Page 342, Grand County, Utah.

Copper No. 3C claim: Beginning at Discovery stake, thence N63-10E, 75 feet to the east end center stake, thence S26-30E, 300 feet to the SE corner No. 1, thence S63-10W, 1500 feet to the SW corner No. 2, thence N26-50W, 300 feet to the west end center stake, thence N26-50W 300 feet to the NW corner No. 3, thence N63-10E, 1500 feet to the NE corner No. 4, thence S26-50E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 345, Grand County, Utah.

Copper No. 3A claim: Beginning at Discovery stake, thence S87-15E, 100 feet to the east end center stake, thence S2-45W, 300 feet to the SE corner No. 1, thence N87-15W 1500 feet to the SW corner No. 2, thence N2-45E 300 feet to the west end center stake thence N2-45E, 300 feet to the NW corner No. 3, thence S87-15E, 1500 feet to the NE corner No. 4, thence S2-45W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 343, Grand County, Utah.

Copper No. 3B claim: Beginning at Discovery stake, thence N87-15W, 90 feet to the east end center stake, thence S2-45W, 300 feet to the SE corner No. 1, thence N87-15W, 1500 feet to the SW corner No. 2, thence N2-45E, 300 feet to the west end center stake, thence N2-45E, 300 feet to the NW corner No. 3, thence S87-15E, 1500 feet to the NE corner No. 4, thence S2-45W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 344, Grand County, Utah.

[illegible]

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

Copper No. 4A claim. Beginning at Discovery stake, thence N72-45E, 10 feet to the east end center stake, thence S17-15E, 300 feet to the SE corner No. 1, thence S72-45W, 1500 feet to the SW corner No. 2, thence N17-15W, 300 feet to the west end center stake, thence N17-15W, 300 feet to the NW, corner No. 3, thence N72-45E, 1500 feet to the NE corner No. 4, thence S17-15E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 347, Grand County, Utah.

Copper No. 4 claim: Beginning at Discovery stake, thence S31-32E, 40 feet to the south end center stake, thence S59-28W, 300 feet to the SW corner No. 1, thence N31-32W, 1500 feet to the NW corner No. 2, thence N59-28E, 300 feet to the North end center stake, thence N59-28E, 300 feet to the NE corner No. 3, thence S31-32E, 1500 feet to the SE corner No. 4, thence S59-28W, 300 feet to the west end center stake or back to the point of beginning. Book 9K, Page 346, Grand County, Utah.

South Fork No. 1 claim: Beginning at Discovery stake, thence N2-45E, 30 feet to the north end center stake, thence S87-15W 300 feet to the NE corner No. 1, thence S2-45W, 1500 feet to the SE corner No.2, thence N87-15W, 300 feet to the south end center stake, thence N87-15W 300 feet to the SW corner No. 3, thence N2-45E, 1500 feet to the NW corner No. 4, thence S87-15E, 300 feet to the east end center stake or to the point of beginning. Book 9K, Page 435, Grand County, Utah.

Copper No. 7 claim: Beginning at Discovery stake, thence S65-0E, 350 feet to the east end center stake, thence S25-0W, 300 feet to the SE corner No. 1, thence N65-0W, 1500 feet to the SW corner No.2, thence N25-0E, 300 feet to the west end center stake, thence N25-00E, 300 feet to the NW corner No. 3, thence S65-00E, 1500 feet to the NE corner No. 4, thence S25-00W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, 334, Grand County, Utah.

Azurite No. 1 claim: Beginning at Discovery stake, thence S65-00E, 50 feet to the east end center stake, thence S25-00W, 300 feet to the SW corner No. 1, thence N65-00W, 1500 feet to the SW corner No. 2, thence N25-00E 300 feet to the west end center stake, thence N25-00E 300 feet to the NW corner No. 3, thence S65-00E, 1500 feet to the NE corner No. 4, thence S25-00W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 335, Grand County, Utah.

The point of discovery on each of the above claims is tied into the corner common to sections 1, 2, 11 and 12. T20E. S.L.B.M.

b). The claims were only recently located and are not known under any particular mine name.

c). The partnership controls the above claims through right of location. None of the claims are patented.

d). Not applicable.

e). There are no known liens or encumbrances existing on the claims.

f). Requested information added above.

(4).

a). Reference is made to the attached map marked Exhibit "A" On this map is shown the two non-contiguous groups of claims which Applicant proposes to explore with five X-cuts each 600 feet long. The proposed exploration X-cuts are indicated on the map in dashed lines and numbered from one to five, respectively.

[illegible]

[illegible] No. [illegible] claim: beginning at [illegible] stake, thence [illegible] feet to the [illegible] center stake, thence [illegible], 300 feet to the [illegible] corner No. 1, thence [illegible], 1500 feet to the [illegible] corner No. 2, thence [illegible], 600 feet to the [illegible] end center stake, thence [illegible] corner No. 3, thence [illegible], 1500 feet to the [illegible] corner No. 4, thence [illegible], 300 feet back to the east(?) end center stake or to the point of beginning. Book 31, Page [illegible], Grand County, Utah.

[illegible] claim: beginning at [illegible] stake, thence [illegible] feet to the [illegible] center stake, thence [illegible], 300 feet to the [illegible] corner No. 1, thence [illegible] feet to the NW corner No. 2, thence [illegible] end center stake, thence [illegible] corner No. 3, thence [illegible], 1500 feet to the [illegible] corner No. 4, thence [illegible] feet to the west end center stake back to the point of beginning. Book 31, Page [illegible], Grand County, Utah.

[illegible] Rock No. 1 claim: beginning at Discovery stake, thence N[illegible]W, [illegible] feet to the north end center stake, thence [illegible] 300 feet to the NE corner No. 1, thence [illegible], 1500 feet to the SE corner No. 2, thence N[illegible]W, 300 feet to the south end center stake, thence [illegible] 300 feet to the SW corner No. 3, thence [illegible], 1500 feet to the NW corner No. 4, thence [illegible], 300 feet to the north end center stake or to the point of beginning. Book 31, Page 33[illegible], Grand County, Utah.

Copper No. [illegible] claim: Beginning at Discovery stake, thence [illegible], [illegible] feet to the east end center stake, thence [illegible], 300 feet to the SE corner No. 1, thence [illegible], 1500 feet to the NE corner No. 2, thence [illegible], 300 feet to the west end center stake, thence N25-[illegible], 300 feet to the NW corner No. 3, thence [illegible], 1500 feet to the SW corner No. 4, thence [illegible], 300 feet back to the east end center stake or to the point of beginning. Book 31, Page 33[illegible], Grand County, Utah.

[illegible] No. [illegible] claim: Beginning at Discovery stake, thence [illegible], [illegible] feet to the east end center stake, thence N25-[illegible], 300 feet to the SE corner No. 1, thence [illegible], 1500 feet to the SW corner No. 2, thence [illegible] feet to the west end center stake, thence [illegible], 300 feet to the NW corner No. 3, thence [illegible], 1500 feet to the NE corner No. 4, thence [illegible], 300 feet back to the east end center stake or to the point of beginning. Book 31, Page 33[illegible], Grand County, Utah.

The point of discovery on each of the above claims is [illegible] the center of [illegible].

b). The claims were [illegible] located and are not [illegible] upon any particular [illegible].

c). The [illegible] the [illegible] claims [illegible] of location. [illegible]

d). [illegible]

e). [illegible]

f). [illegible] information [illegible] above.

(g).

[illegible]

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

On the South Group of claims the Applicant has exposed the mineralized bed with dozer cuts for a distance of 400 feet. All of the exposed outcrop is radioactive with certain sections indicating commercial ore. Three short tunnels have been started on the better ore showings. Total length of the tunnels is approximately 50 feet. From the outcrop and the tunnels approximately 100 tons of commercial ore has been produced. A mine access road to this section of the outcrop has been constructed. Mine workings are dry and readily accessible for examination.

b). Past production as noted above has amounted to approximately 100 tons assaying 0.25% U_3O_8.

Current production is negligible.

On the North Group of claims exploration consists only of a mine access road constructed to the rim. There still remains 1000 feet of additional access road to be constructed in order to reach the portals of the proposed tunnels. The 1000 feet of proposed access road is shown on the map and is necessary in order to reach the better ore showings on the rim.

Ore reserves are difficult to estimate and are therefore limited to a few hundred tons.

c). As indicated on the attached map marked Exhibit "A" in dashed lines, a mineralized bed of Shinarump outcrops. The bed is at the base of the Chinle formation and rests on top of the Moenkopi. The Shinarump bed where exposed, consists of a rather coarse grained vitreous sandstone. Trash carbon and trees were noted. The Shinarump rests on a bed of purple clay approximately 4 feet thick. The average thickness of the Shinarump bed is 4 feet. All mineralization may not be confined to the Shinarump since field examinations indicate the possibility of ore higher in the Chinle beds.

The important uranium mineral in the ore is pitchblende, probably in the form of minute particles. The leached outcrop shows several uranium salts. Copper carbonates were noted. The outcrop also shows the presence of vanadium in small amounts.

Major Faulting has occured one half mile to the east. The beds within the claims have been fractured more or less parallel to the major fault. The writer, Leo J. Coady, Consulting Mining Engineer, who prepared this application, is of the opinion that the fractures influenced ore deposition. Therefore, the proposed exploration has been laid out so as to take full advantage of structural features. The base of the Wingate is shown on the map as a dotted line. The combined thickness of the Wingate and the Chinle formations exceed 600 feet. Core drilling is not believed feasible. Therefore, in lieu of a core drilling program, Applicant is requesting a loan to drive the exploratory X-cuts as indicated on the attached map.

No geologic or engineering reports have been made on the property.

d). The east boundary of the South Group of claims is only one half mile off Highway 160 at a point eight miles north of Moab, Utah. The claims are 58 miles from the Government processing plant at Monticello, Utah. Mining supplies are available at both Moab and Monticello.

e). An ample supply of manpower is available including Indians from the Reservation.

(5).

a). Uranium and vanadium minerals.

b). Reference is made to the attached map marked Exhibit "A".

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

The map shows the claims in the two groups, the proposed exploration X-cuts, the proposed access road (1000 feet) and the section of the rim on the South Group which has been prospected. The beds dip approximately 8 degrees to the west. Therefore, proposed X-cuts Nos. 1 and 2 will be driven down grade. It is planned to carry the headings in the Shinarump with the floor of the X-cuts on the purple clay of the Moenkopi contact.

Proposed X-cuts Nos. 3 and 5 in the North Group of claims will be driven level since they will be normal to the strike of the beds. Proposed X-cut No. 4 will be up grade. In these three X-cuts it is also planned to carry the headings in the Shinarump with the floor of the X-cuts on the purple clay of the Moenkopi contact.

SouthGroup,	Proposed X-cut	No.1 - 600 ft.	
" "	"	" No.2 - 600 ft.	1200 ft.
North Group,	Proposed X-cut	No.3 - 600 ft.	
" "	"	" No.4 - 600 ft.	
" "	"	" No.5 - 600 ft.	1800 ft.
		Total -	3000 ft.
		Access Road -	1000 ft.

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

d). Mr.Nicholas J. Murphy, one of the partners, will direct the operations. Mr.Leo J. Coady will probably act as Consultant. Field Engineer on the job has not yet been chosen.

Mr.Murphy, who will direct the operations, has had several years of uranium mining experience on the Colorado Plateau as miner, mucker, etc. He has spent much time prospecting in the area and has located many claims in the Shinarump, some of which he is presently operating. Mr. Murphy is married and with his family lives at Moab, Utah.

Mr. Gordon Babbel, a partner, is an expert in the field of electronics. Sponsored by Minerals Engineering Company of Grand Junction, Colorado, he manufactures his own Geiger counter which is now on sale.

Mr. Samuel R. Zimmerman, the other partner, is a practicing attorney in Baldwin Park, California.

(6).

a), b), c), d), e), f),and g):

Operator proposes to rent the equipment necessary to perform the exploration work with rental expenses a direct cost to the exploration project. For Superintendent's use and for rustling supplies to the project, Applicant will furnish his Ford automobile at the "use allowance" cost to the project.

Costs are predicated on the 5 X-cuts operating simultaneously; Total footage - 3000 feet; Size 6' X 8' (rock breakage); Each X-cut 600' long; Advance 25 feet/dy. in the five X-cuts; at 24 working days/month; Advance 600' per month; Total time required 5 months. In driving the drifts applicant proposes to use mucking machines at the face and transport the muck with shuttle cars. No rails will be required.

Nicholas J.Murphy
P.O.Box 372
Moab, Utah
Phone 2333

COSTS:

Direct LaborCosts:	(24 dys) PER MONTH	5 MONTHS	
10- Miners @ $18/dy -	$4320	$21600	
1 - Truck Driver (water truck) @ $12/dy -	288	1440	$23040
Indirect Labor Costs:			
1- Supt. & Engineer (combined) @ $700/mo -	700	3500	
Consulting Services @ $500/mo	500	2500	
Accounting Expenses (part time @ $300/mo)-	300	1500	
Assaying Expenses (part time @ $300/mo)-	300	1500	
Payroll Taxes etc. (10%) -	640	3200	$12200
Equipment rental & cost of supplies:			
2-210 cu.ft. Compressors (cost $12000, rental @ $600/mo) -	600	3000	
Operating exp. (gas, oil, repairs & services @ $240/mo. for each) -	480	2400	
1-105 cu. ft. Compressor (cost $4000, rental @ $150/mo.) -	150	750	
Operating exp. (gas, oil, repairs & services @ $150/mo.) -	150	750	
3- Shuttle car trammers (cost $6000, rental @ $375/mo.) -	375	1875	
Operating exp. (gas, oil & services @ $720/mo -	720	3600	
5- Jackhammers & Jacklegs (cost $3000, rental @ $300/mo.) -	300	1500	
Drill steel, bits & services -	650	3250	
3- Mucking machines, crawler mounted (cost $12000, rental @ $600/mo.) -	600	3000	
Operating exp. (oil & services)	200	1000	
5- Blowers (ventilation) cost $3500, rental @ $375/mo. -	375	1875	
3000' - 12" fan pipe @ 90¢/ft (salvage item)	-	2700	
1- Water truck with 500 gal. tank (cost $1800 rental @ $150/mo.) -	150	750	
Operating exp. (gas, oil & services) -	208	1040	
1- John Deere Loader, use at portals (cost $3200, rental for one month use $200) -	200	200	
Operating exp. (gas, oil for 1 month) -	200	200	
3000' - Black iron pipe (air 2" Salvage item)-		2250	
3000' - 1" iron pipe (water) " " -		1800	
Air & water hoses (salvage item) -		400	
1- Ford car, for hauling supplies, cost $2300 use allowance @ 1/60 cost/mo. -	38	190	
Operating exp. @ 10¢/mi (1500 mi/mo) -	150	750	
Carbide, powder, caps & fuse -	1050	5250	
50 - Mine stulls (16' long) -		200	
2000 Board feet 2" mine plank, r. lengths	-	200	
Supply of small mine tools -		500	
500 gal. water tank for mine drill water -		200	$39630

Total estimated cost for driving 3000' of X-cuts - $74870
Total estimated cost per foot - $24.95

Access road costs: (1000' of road, Time required 1 month)

1- TD24, Int. Dozer (cost $30000,rental @ $100/dy) 30 dys @ $100/dy -	$3000	
1- Cat operator @ $20/dy - (30 dys @ $20/dy) -	600	
Taxes (10%) -	60	
Removal of hard rock if encountered -	500	4160
Total estimated cost of project - - -		$79030

Applicant's share (10% of $79030) or $7903.

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

h). While it is not anticipated, should water be encountered in either of the X-cuts on the South Group, a contingency allowance of $3000 is requested to provide pumping and necessary water removal facilities.

(7).

a). Applicant is prepared to furnish his share ($7903) of the cost of the project.

b). Applicant is prepared and if so requested, will deposit his share ($7903) of the cost of the project in any bank designated by Defense Minerals Exploration Administration.

August 18, 1952

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Acting Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

Listed below is the assigned docket number to an application which was recently received from Region IV.

DMEA-2656 - Nicholas J. Murphy

Sincerely yours,

SIGNED
Wingfield Chamberlain
Acting Chief, Operation's
Control and Statistics Division

Mr. Nicholas J. Murphy
P. O. Box 372
Moab, Utah

Subject: DMEA-2656
Re: Exploration Assistance
Copper Claim Nos. 1, 1A, etc.
August 18, 1952

My dear Mr. Murphy:

The receipt of your application dated July 30, 1952, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2656 and referred to the Rare and Miscellaneous Metals Division.

Kindly refer to DMEA-2656 in any future correspondence relating to your application.

Sincerely yours,

SIGNED
Wingfield Chamberlain
Acting Chief, Operation's
Control and Statistics Division

25451

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

224 New Customhouse
Denver 2, Colorado

August 13, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

AUG 18 1952

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: (Uranium) Application of Nicholas J. Murphy, Copper Group, Grand County, Utah

Attached are three copies of the subject application requesting exploration aid in the amount of $79,030.00.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosure

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

224 New Customhouse
Denver 2, Colorado

August 13, 1952

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: (Uranium) Application of Nicholas J. Murphy, Copper Group, Grand County, Utah

Attached are three copies of the subject application requesting exploration aid in the amount of $79,030.00.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosure

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-2656
Metal or Mineral
Date Received 8-18-52
Estimated Cost
Participation (Government %)

AUG 18 1952

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address:

Nicholas J. Murphy
P. O. Box 372
Moab, Utah Phone 2333

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

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

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

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

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

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

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

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

5. *The exploration project.*—(*a*) S[illegible] the mineral or minerals for which you wis[illegible] explore .....

.....

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated July 30, 1952, 195...

Nicholas Murphy
(Applicant)

By .....

.....

.....

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

U. S. GOVERNMENT PRINTING OFFICE 16—60551-1

- Answers to Questions - Form MF-103 (Revised April 1952)

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

(1).

a). Nicholas J. Murphy
P. O. Box 372
Moab, Utah

b). A partnership.

c). Not applicable.

d). Partnership consists of:

Nicholas J. Murphy
P. O. Box 372
Moab, Utah

Samuel R. Zimmerman
14321 East Ramona Boulevard
Baldwin Park, California
Tel. Fleetwood 7-1296

Gordon Babbel
Moab, Utah.

(3).

a). Reference is made to the attached map marked Exhibit "A". On the map within the shaded lines are shown the claims which may be benefitted by the exploration and are, therefore, included. There are two groups of claims involved. The groups are not contiguous. The map shows the proposed X-cuts on each group in dashed lines.

The legal description of the claims involved in each group is as follows:

<u>South Group (3 Unpatented Claims)</u>:

Copper No. 1B claim: Beginning at discovery stake, thence S 61-20E, 40 feet to the east end center stake, thence S 28-40 W, 160 feet to the SE. cor. No. 1, thence N 61-20 W, 1500 feet to the SW cor. No. 2, thence N 28-40 E, 300 feet to the west end center stake, thence N 28-40 E, 300 feet to the NW. cor. No. 3, thence S 61-20 E, 1500 feet to the NE cor. No. 4, thence S 28-40 W, 160 feet back to the east end center stake or to the point of beginning. The discovery stake of this claim is tied into Section corner 1, 2, 11 and 12, T25 S, R 20 E, S. L. B & M. Book 9K, Page 338 Grand County, Utah

Copper No. 1 claim: Beginning at Discovery Stake, thence S 73-30E, 45 feet to the east end center stake, thence S 16-30 W, 300 feet to the SE cor. No. 1, thence N 73-30 W. 1500 feet to the SW. cor.No. 2, thence N 16-30 E, 300 feet to the west end center stake, thence N 16-30 E, 300 feet to the NW. Cor. No. 3, thence S 73-30 E, 1500 feet to the NE cor. No. 4, thence S 16-30 W, 300 feet to the east and center stake or the point of beginning. The discovery stake of this claim is tied into Section Corner 1,2, 11 & 12, T 25 S, R 20 E. S. L. B & M. Book 9K,Page 326, Grand County, Utah.

Copper No. 1A claim: Beginning at Discovery Stake, thence S 89-15E, 10 feet to the east end center stake, thence S 0-10 W, 300 feet to the SW cor. No. 1, thence N 89-15 W, 1500 feet to the SW cor. No. 2, thence N 0-10E, 300 feet to the west end center stake, thence N 0-10 E, 300 feet to the NW. cor No. 3, thence S 89-15E, 1500 feet to the Ne. cor. No. 4, thence S 0-10 W, 300 feet back to the point of beginning or the east end center stake. The discovery stake of this claim is tied into Section Corner 1, 2, 11 & 12, T25S, R20E. S. L. B & M. Book 9K, Page 337. Grand County, Utah.

Description of Operations - Form MT-102 (Revised April 1952)

Michael J. Murphy
P. O. Box 37
Moab, Utah
Phone [illegible]

(1).

a). Michael J. Murphy
P. O. Box 37
Moab, Utah

b). [illegible]

c). Not applicable.

d). Partnership [illegible]

Michael J. Murphy
P. O. Box 37
Moab, Utah

Samuel S. Ellsworth
Office of Hearing Examiner
Federal Bldg., Salt Lake City
Tel. Phone [illegible]

Sandra Bahnel
Moab, Utah

(2).

a). Reference is made to the attached map marked "Exhibit A". On the map, which the added lines are shown the claims which may be benefitted by the exploration and development, hereinafter indicated. There are two groups of claims involved. The groups are [illegible] claims. The two groups are designated as A-Group on each side of [illegible] dashed line.

The legal description of the claims involved in each group is as follows:

Group A (Lessee's Claims):

Copper No. 1 claim: Beginning at discovery stake, thence S [illegible] 10 feet to the east [illegible] corner, thence S [illegible] to the [illegible] cor., No. 1, thence N [illegible] to the [illegible] cor., thence [illegible] feet to the [illegible] cor., thence [illegible] feet to the [illegible] cor., thence [illegible] feet

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

North Group (12 claims):

Copper No. 2A claim: Beginning at Discovery stake, thence N33-45E 78 feet to the north end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S33-45W, 1500 feet to the SE, corner No. 2, thence N56-15W, 300 feet to the South end center stake, thence N56-15W, 300 feet to the SW, cor. No 3, thence N35-45E, 1500 feet to the NW cor. No. 4, thence S56-15E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 340, Grand County, Utah.

Copper No. 2 claim: Beginning at Discovery Stake, thence N33-45E, 192 feet to the North end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S35-45W, 1500 feet to the SE corner No. 2, thence N56-15W, 300 feet to the South end center stake, thence N56-15W, 300 feet to the SW corner No. 3, thence N33-45 E, 1500 feet to the NW,corner No. 4, thence S56-15E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 339, Grand County, Utah.

Copper No. 2B claim: Beginning at Discovery Stake, thence N33-45E, 144 feet to the North end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S33-45W, 1500 feet to the SE corner No. 2, thence N56-15E, 300 feet to the South end center stake, thence N56-15E, 300 feet to the SW corner No. 3, thence N33-45E, 1500 feet to the NW corner No. 4, thence S56-15E, 300 feet back to the east end center stake of the point of beginning. Book 9K, Page 341, Grand County, Utah.

Copper No. 3 claim: Beginning at Discovery stake, thence N33-45E, 189 feet to the north end center stake, thence S56-15E, 300 feet to the NE corner No. 1, thence S33-45W, 1500 feet to the SE corner No. 2, thence N56-15W, 300 feet to the south end center stake, thence N56-15W 300 feet to the SW, corner No. 3, thence N33-45E, 1500 feet to the NW corner No. 4, thence S56-15E, 300 feet to the north end center stake or to the point of beginning. Book 9K, Page 342, Grand County, Utah.

Copper No. 3C claim: Beginning at Discovery stake, thence N63-10E, 75 feet to the east end center stake, thence S26-30E, 300 feet to the SE corner No. 1, thence S63-10W, 1500 feet to the SW corner No. 2, thence N26-50W, 300 feet to the west end center stake, thence N26-50W 300 feet to the NW corner No. 3, thence N63-10E, 1500 feet to the NE corner No. 4, thence S26-50E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 345, Grand County, Utah.

Copper No. 3A claim: Beginning at Discovery stake, thence S87-15E, 100 feet to the east end center stake, thence S2-45W, 300 feet to the SE corner No. 1, thence N87-15W 1500 feet to the SW corner No. 2, thence N2-45E 300 feet to the west end center stake thence N2-45E, 300 feet to the NW corner No. 3, thence S87-15E, 1500 feet to the NE corner No. 4, thence S2-45W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 343, Grand County, Utah.

Copper No. 3B claim: Beginning at Discovery stake, thence N87-15W, 90 feet to the east end center stake, thence S2-45W, 300 feet to the SE corner No. 1, thence N87-15W, 1500 feet to the SW corner No. 2, thence N2-45E, 300 feet to the west end center stake, thence N2-45E, 300 feet to the NW corner No. 3, thence S87-15E, 1500 feet to the NE corner No. 4, thence S2-45W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 344, Grand County, Utah.

[illegible]

[illegible]

[illegible]

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

Copper No. 4A claim. Beginning at Discovery stake, thence N72-45E, 10 feet to the east end center stake, thence S17-15E, 300 feet to the SE corner No. 1, thence S72-45W, 1500 feet to the SW corner No. 2, thence N17-15W, 300 feet to the west end center stake, thence N17-15W, 300 feet to the NW, corner No. 3, thence N72-45E, 1500 feet to the NE corner No. 4, thence S17-15E, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 347, Grand County, Utah.

Copper No. 4 claim: Beginning at Discovery stake, thence S31-32E, 40 feet to the south end center stake, thence S59-28W, 300 feet to the SW corner No. 1, thence N31-32W, 1500 feet to the NW corner No. 2, thence N59-28E, 300 feet to the North end center stake, thence N59-28E, 300 feet to the NE corner No. 3, thence S31-32E, 1500 feet to the SE corner No. 4, thence S59-28W, 300 feet to the west end center stake or back to the point of beginning. Book 9K, Page 346, Grand County, Utah.

South Fork No. 1 claim: Beginning at Discovery stake, thence N2-45E, 30 feet to the north end center stake, thence S87-15W 300 feet to the NE corner No. 1, thence S2-45W, 1500 feet to the SE corner No.2, thence N87-15W, 300 feet to the south end center stake, thence N87-15W 300 feet to the SW corner No. 3, thence N2-45E, 1500 feet to the NW corner No. 4, thence S87-15E, 300 feet to the east end center stake or to the point of beginning. Book 9K, Page 435, Grand County, Utah.

Copper No. 7 claim: Beginning at Discovery stake, thence S65-0E, 350 feet to the east end center stake, thence S25-0W, 300 feet to the SE corner No. 1, thence N65-0W, 1500 feet to the SW corner No.2, thence N25-0E, 300 feet to the west end center stake, thence N25-00E, 300 feet to the NW corner No. 3, thence S65-00E, 1500 feet to the NE corner No. 4, thence S25-00W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, 334, Grand County, Utah.

Azurite No. 1 claim: Beginning at Discovery stake, thence S65-00E, 50 feet to the east end center stake, thence S25-00W, 300 feet to the SW corner No. 1, thence N65-00W, 1500 feet to the SW corner No. 2, thence N25-00E 300 feet to the west end center stake, thence N25-00E 300 feet to the NW corner No. 3, thence S65-00E, 1500 feet to the NE corner No. 4, thence S25-00W, 300 feet back to the east end center stake or to the point of beginning. Book 9K, Page 335, Grand County, Utah.

The point of discovery on each of the above claims is tied into the corner common to sections 1, 2, 11 and 12. T20E. S.L.B.M.

b). The claims were only recently located and are not known under any particular mine name.

c). The partnership controls the above claims through right of location. None of the claims are patented.

d). Not applicable.

e). There are no known liens or encumbrances existing on the claims.

f). Requested information added above.

(4).

a). Reference is made to the attached map marked Exhibit "A" On this map is shown the two non-contiguous groups of claims which Applicant proposes to explore with five X-cuts each 600 feet long. The proposed exploration X-cuts are indicated on the map in dashed lines and numbered from one to five, respectively.

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

On the South Group of claims the Applicant has exposed the mineralized bed with dozer cuts for a distance of 400 feet. All of the exposed outcrop is radioactive with certain sections indicating commercial ore. Three short tunnels have been started on the better ore showings. Total length of the tunnels is approximately 50 feet. From the outcrop and the tunnels approximately 100 tons of commercial ore has been produced. A mine access road to this section of the outcrop has been constructed. Mine workings are dry and readily accessible for examination.

b). Past production as noted above has amounted to approximately 100 tons assaying 0.25% U308.

Current production is negligible.

On the North Group of claims exploration consists only of a mine access road constructed to the rim. There still remains 1000 feet of additional access road to be constructed in order to reach the portals of the proposed tunnels. The 1000 feet of proposed access road is shown on the map and is necessary in order to reach the better ore showings on the rim.

Ore reserves are difficult to estimate and are therefore limited to a few hundred tons.

c). As indicated on the attached map marked Exhibit "A" in dashed lines, a mineralized bed of Shinarump outcrops. The bed is at the base of the Chinle formation and rests on top of the Moenkopi. The Shinarump bed where exposed, consists of a rather coarse grained vitreous sandstone. Trash carbon and trees were noted. The Shinarump rests on a bed of purple clay approximately 4 feet thick. The average thickness of the Shinarump bed is 4 feet. All mineralization may not be confined to the Shinarump since field examinations indicate the possibility of ore higher in the Chinle beds.

The important uranium mineral in the ore is pitchblende, probably in the form of minute particles. The leached outcrop shows several uranium salts. Copper carbonates were noted. The outcrop also shows the presence of vanadium in small amounts.

Major Faulting has occured one half mile to the east. The beds within the claims have been fractured more or less parallel to the major fault. The writer, Leo J. Coady, Consulting Mining Engineer, who prepared this application, is of the opinion that the fractures influenced ore deposition. Therefore, the proposed exploration has been laid out so as to take full advantage of structural features. The base of the Wingate is shown on the map as a dotted line. The combined thickness of the Wingate and the Chinle formations exceed 600 feet. Core drilling is not believed feasible. Therefore, in lieu of a core drilling program, Applicant is requesting a loan to drive the exploratory X-cuts as indicated on the attached map.

No geologic or engineering reports have been made on the property.

d). The east boundary of the South Group of claims is only one half mile off Highway 160 at a point eight miles north of Moab, Utah. The claims are 58 miles from the Government processing plant at Monticello, Utah. Mining supplies are available at both Moab and Monticello.

e). An ample supply of manpower is available including Indians from the Reservation.

(5).

a). Uranium and vanadium minerals.

b). Reference is made to the attached map marked Exhibit "A".

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

The map shows the claims in the two groups, the proposed exploration X-cuts, the proposed access road (1000 feet) and the section of the rim on the South Group which has been prospected. The beds dip approximately 8 degrees to the west. Therefore, proposed X-cuts Nos. 1 and 2 will be driven down grade. It is planned to carry the headings in the Shinarump with the floor of the X-cuts on the purple clay of the Moenkopi contact.

Proposed X-cuts Nos. 3 and 5 in the North Group of claims will be driven level since they will be normal to the strike of the beds. Proposed X-cut No. 4 will be up grade. In these three X-cuts it is also planned to carry the headings in the Shinarump with the floor of the X-cuts on the purple clay of the Moenkopi contact.

SouthGroup, Proposed X-cut No.1 - 600 ft.		
" " " " No.2 - 600 ft.		1200 ft.
North Group, Proposed X-cut No.3 - 600 ft.		
" " " " No.4 - 600 ft.		
" " " " No.5 - 600 ft.		1800 ft.
Total -		3000 ft.
Access Road -		1000 ft.

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

d). Mr.Nicholas J. Murphy, one of the partners, will direct the operations. Mr.Leo J. Coady will probably act as Consultant. Field Engineer on the job has not yet been chosen.

Mr.Murphy, who will direct the operations, has had several years of uranium mining experience on the Colorado Plateau as miner, mucker, etc. He has spent much time prospecting in the area and has located many claims in the Shinarump, some of which he is presently operating. Mr. Murphy is married and with his family lives at Moab, Utah.

Mr. Gordon Babbel, a partner, is an expert in the field of electronics. Sponsored by Minerals Engineering Company of Grand Junction, Colorado, he manufactures his own Geiger counter which is now on sale.

Mr. Samuel R. Zimmerman, the other partner, is a practicing attorney in Baldwin Park, California.

(6).
a), b), c), d), e), f),and g):

Operator proposes to rent the equipment necessary to perform the exploration work with rental expenses a direct cost to the exploration project. For Superintendent's use and for rustling supplies to the project, Applicant will furnish his Ford automobile at the "use allowance" cost to the project.

Costs are predicated on the 5 X-cuts operating simultaneously; Total footage - 3000 feet; Size 6' X 8' (rock breakage); Each X-cut 600' long; Advance 25 feet/dy. in the five X-cuts; at 24 working days/month; Advance 600' per month; Total time required 5 months. In driving the drifts applicant proposes to use mucking machines at the face and transport the muck with shuttle cars. No rails will be required.

Nicholas J.Murphy
P.O.Box 372
Moab, Utah
Phone 2333

COSTS:

Direct LaborCosts:	(24 dys) PER MONTH	5 MONTHS	
10- Miners @ $18/dy -	$4320	$21600	
1 - Truck Driver (water truck) @ $12/dy -	288	1440	$23040
Indirect Labor Costs:			
1- Supt. & Engineer (combined) @ $700/mo -	700	3500	
Consulting Services @ $500/mo	500	2500	
Accounting Expenses (part time @ $300/mo)-	300	1500	
Assaying Expenses (part time @ $300/mo)-	300	1500	
Payroll Taxes etc. (10%) -	640	3200	$12200
Equipment rental & cost of supplies:			
2-210 cu.ft. Compressors (cost $12000, rental @ $600/mo) -	600	3000	
Operating exp. (gas, oil, repairs & services @ $240/mo. for each) -	480	2400	
1-105 cu. ft. Compressor (cost $4000, rental @ $150/mo.) -	150	750	
Operating exp. (gas, oil, repairs & services @ $150/mo.) -	150	750	
3- Shuttle car trammers (cost $6000, rental @ $375/mo.) -	375	1875	
Operating exp. (gas, oil & services @ $720/mo -	720	3600	
5- Jackhammers & Jacklegs (cost $3000, rental @ $300/mo.) -	300	1500	
Drill steel, bits & services -	650	3250	
3- Mucking machines, crawler mounted (cost $12000, rental @ $600/mo.) -	600	3000	
Operating exp. (oil & services)	200	1000	
5- Blowers (ventilation) cost $3500, rental @ $375/mo. -	375	1875	
3000' - 12" fan pipe @ 90¢/ft (salvage item)	-	2700	
1- Water truck with 500 gal. tank (cost $1800 rental @ $150/mo.) -	150	750	
Operating exp. (gas, oil & services) -	208	1040	
1- John Deere Loader, use at portals (cost $3200, rental for one month use $200) -	200	200	
Operating exp. (gas, oil for 1 month) -	200	200	
3000' - Black iron pipe (air 2" Salvage item)-		2250	
3000' - 1" iron pipe (water) " " -		1800	
Air & water hoses (salvage item) -		400	
1- Ford car, for hauling supplies, cost $2300 use allowance @ 1/60 cost/mo. -	38	190	
Operating exp. @ 10¢/mi (1500 mi/mo) -	150	750	
Carbide, powder, caps & fuse -	1050	5250	
50 - Mine stulls (16' long) -		200	
2000 Board feet 2" mine plank, r. lengths	-	200	
Supply of small mine tools -		500	
500 gal. water tank for mine drill water -			$39630
Total estimated cost for driving 3000' of X-cuts -			$74870
Total estimated cost per foot - $24.95			

Access road costs: (1000' of road, Time required 1 month)

1- TD24, Int. Dozer (cost $30000,rental @ $100/dy) 30 dys @ $100/dy -	$3000	
1- Cat operator @ $20/dy - (30 dys @ $20/dy) -	600	
Taxes (10%) -	60	
Removal of hard rock if encountered -	500	4160
Total estimated cost of project - - -		$79030

Applicant's share (10% of $79030) or $7903.

Nicholas J. Murphy
P. O. Box 372
Moab, Utah
Phone 2333

h). While it is not anticipated, should water be encountered in either of the X-cuts on the South Group, a contingency allowance of $3000 is requested to provide pumping and necessary water removal facilities.

(7).

a). Applicant is prepared to furnish his share ($7903) of the cost of the project.

b). Applicant is prepared and if so requested, will deposit his share ($7903) of the cost of the project in any bank designated by Defense Minerals Exploration Administration.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1201 NORTH DIVISION STREET
SPOKANE 2, WASHINGTON

OFFICIAL BUSINESS

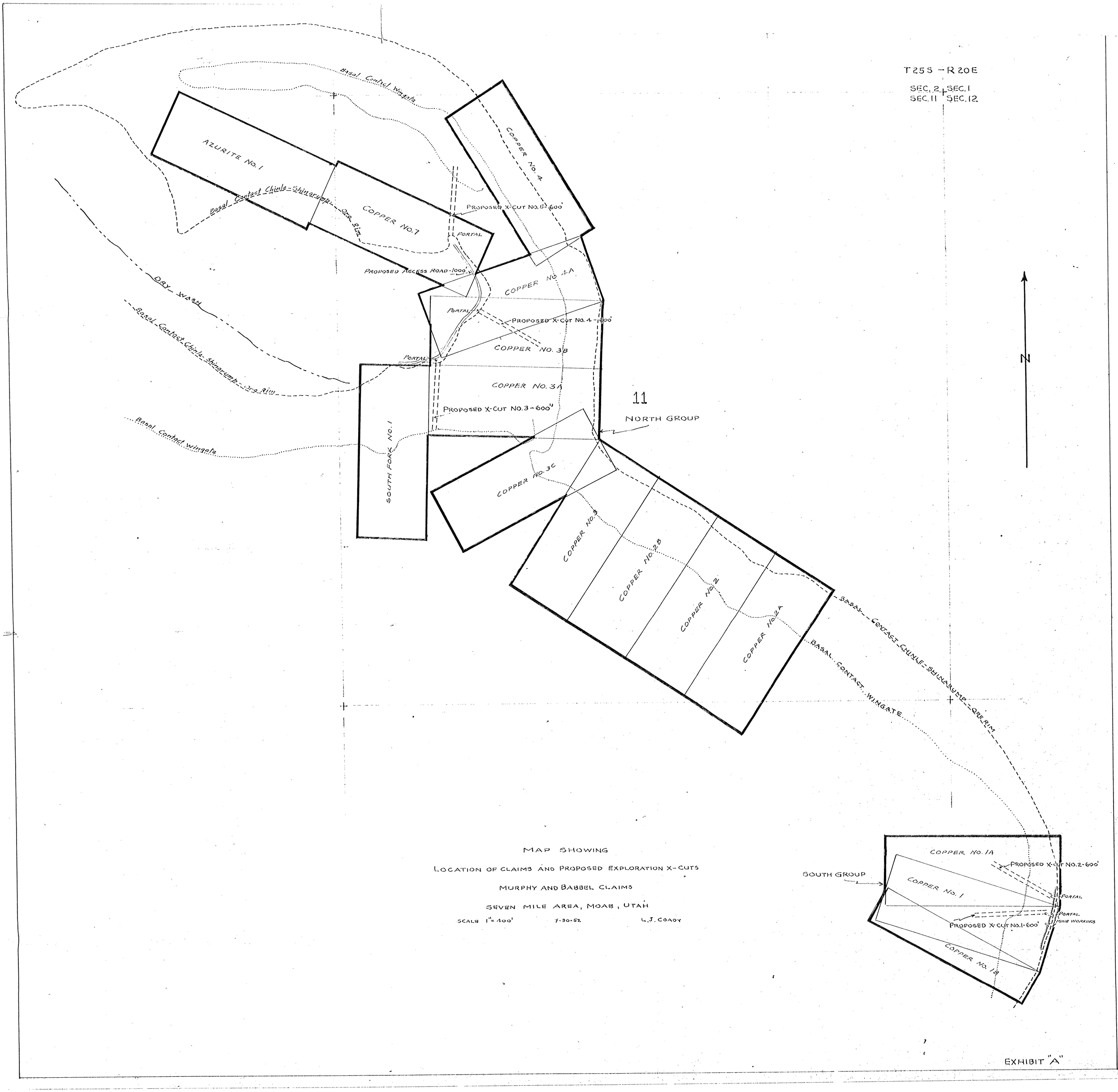
PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(PMGC)

SPOKANE, AUG 12 1730PM 1952 WASH.

2

SPOKANE, AUG 12 1730PM 1952 WASH.

Chairman, Operating Committee
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.



MAP SHOWING

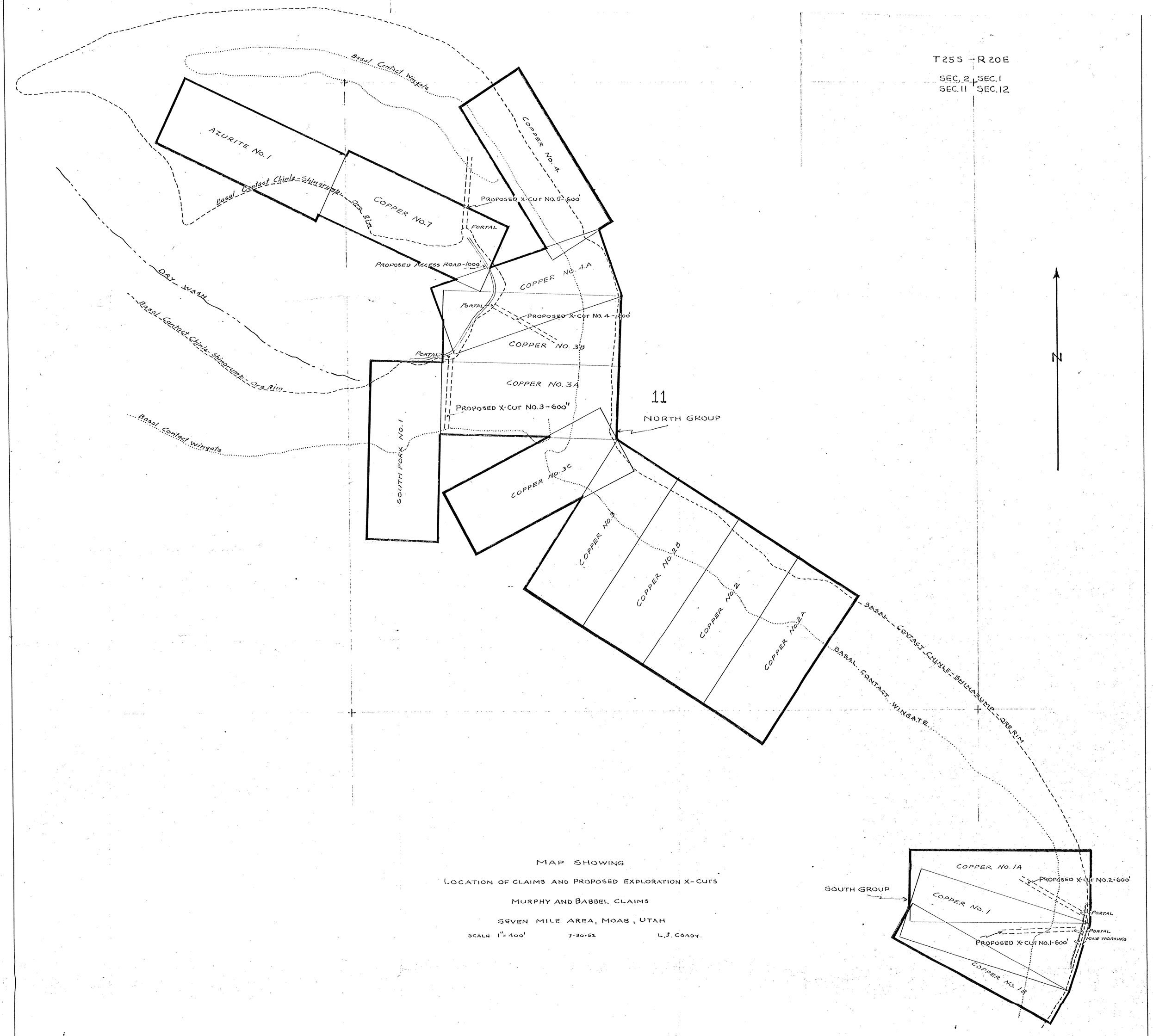
LOCATION OF CLAIMS AND PROPOSED EXPLORATION X-CUTS

MURPHY AND BABBEL CLAIMS

SEVEN MILE AREA, MOAB, UTAH

SCALE 1" = 400' 7-30-52 L.J. COADY

EXHIBIT "A"



MAP SHOWING

LOCATION OF CLAIMS AND PROPOSED EXPLORATION X-CUTS

MURPHY AND BABBEL CLAIMS

SEVEN MILE AREA, MOAB, UTAH

SCALE 1" = 400' 7-30-52 L.J. COADY.

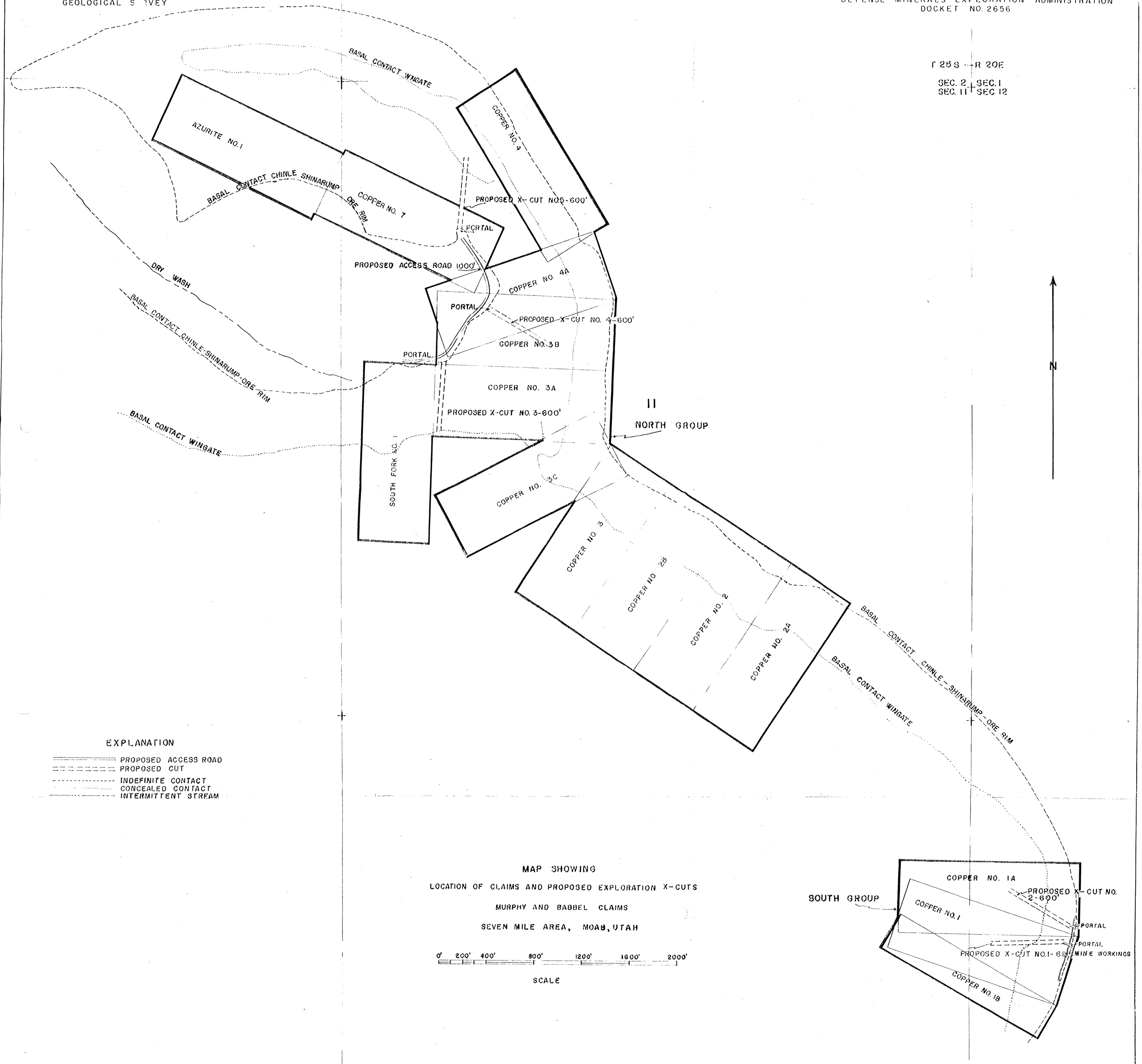
EXHIBIT "A"

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO. 2656

T 25 S — R 20 E

SEC. 2 | SEC. 1
SEC. 11 | SEC. 12



MAP SHOWING

LOCATION OF CLAIMS AND PROPOSED EXPLORATION X-CUTS

MURPHY AND BABBEL CLAIMS

SEVEN MILE AREA, MOAB, UTAH

FIG. 3

ADAPTED FROM L. J. COADY EXHIBIT A