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

224 New Customhouse
Denver 2, Colorado

June 9, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Report of Examination, DMEA Docket 3721 (Uranium), Urado Uranium, Inc., Fort Knox sublease, San Miguel County, Colorado

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

We concur with the recommendation of the field examiners that the application be denied without prejudice.

DMEA Field Team, Region III

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosures

DMEA
Date Rec'd.

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BUREAU OF MINES
Denver, Colorado
JUN 17 1955

Region III

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
June 6, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw

Subject: DMEA 3721, Urado Uranium, Inc. (Fort Knox sublease) San Miguel County, Colorado

Enclosed are the original and eleven copies of a "Summary, Conclusions, and Recommendations," by C. M. Harrer, mining engineer, Bureau of Mines, and the original and eleven copies of an engineering report by C. M. Harrer, covering DMEA 3721.

Urado Uranium, Inc. applied for exploration assistance in the amount of $69,329 to explore the Fort Knox sublease by diamond drilling. The property was examined on May 10, 1955, by an examining team from the Geological Survey and the Bureau of Mines. The applicant's sublease is invalid in that it does not have the approval of the Atomic Energy Commission. There are no known deposits of uranium on the claim and the property is almost completely covered by land-slide debris. The proposed work is classified as wild-catting or prospecting and does not meet the requirements of the DMEA. It is recommended that the application be denied.

W. H. KING

W. H. King, for
John F. Shaw

cc 11
DMEA 3721
DMEA Chron.

JFS/pah

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

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JUN 17 1955

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3721, Fort Knox Sub-Lease
Urado Uranium, Inc.
San Miguel County, Colorado

Uranium

G. M. Harrer, Mining Engineer
Bureau of Mines

June 6, 1955

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DMEA 3721
FORT KNOX SUB-LEASE
URADO URANIUM, INC.
SAN MIGUEL COUNTY, COLORADO

Summary, Conclusions, and Recommendations

By C. M. Harrer
Mining Engineer
Bureau of Mines

TRANSMITTED
JUN - 9 1955

DMEA 3721
FORT KNOX SUB-LEASE
URADO URANIUM, INC.
SAN MIGUEL COUNTY, COLORADO

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JUN 17 1955

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By C. M. Harrer

Urado Uranium, Inc., 304 Main St., Grand Junction, Colo., has applied for Defense Minerals Exploration Administration assistance to explore their Fort Knox sub-lease with 37 diamond drilled holes totaling 13,670 feet at an over all cost of $69,329.00.

The property was examined on May 10, 1955, by a team consisting of members of the Geological Survey and Bureau of Mines. H. A. Culp, consulting geologist and a director in the applicant company, accompanied the examining team and represented the applicant.

The Fort Knox sub-lease consists of the northwest quarter of sec. 29, and the northeast quarter of sec. 30, T. 45 N., R. 18 W., in San Miguel County, Colorado, excluding small exceptions along the south boundary.

The exposed rocks on the lease include the Cretaceous Burro Canyon formation and the Brushy Basin member of the Jurassic Morrison formation. Most of the lease is covered by landslide debris and there is evidence of complex faulting. There are no encouraging or mineralized exposures of the Salt Wash on the property and no defined exploration targets.

The proposed work is classed as long shot "wild catting" or prospecting and does not meet the requirements of the Defense Minerals Exploration Administration.

The applicant's sublease is part of a larger lease granted to the lessor by the Atomic Energy Commission. The applicant's sublease is invalid in that it does not have the stipulated approval of the Atomic Energy Commission.

It is recommended that this application for exploration assistance be denied for the above reasons. Since the applicant has stated his intention to drill part of the Fort Knox lease at his own expense and may clear up his title when it is brought to his attention, it is further recommended that the denial be without prejudice.

DMEA 3721
FORT KNOX SUB-LEASE
URADO URANIUM, INC.
SAN MIGUEL COUNTY, COLORADO

Engineering Report

By C. M. Harrer
Mining Engineer
Bureau of Mines

DMEA 3721
FORT KNOX SUB-LEASE
URADO URANIUM, INC.
SAN MIGUEL COUNTY, COLORADO

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ILLUSTRATIONS

Figure — Follows Page

1. Location map, Fort Knox sub-lease, Urado Uranium, Inc., San Miguel County, Colo. (DMEA 3721) 1

2. Map of Fort Knox sub-lease and proposed exploration, Urado Uranium, Inc., San Miguel County, Colo. (DMEA 3721) 1

DMEA 3721
FORT KNOX SUB-LEASE
URADO URANIUM, INC.
SAN MIGUEL COUNTY, COLORADO

ENGINEERING REPORT

By C. M. Harrer

INTRODUCTION

Urado Uranium, Inc., 304 Main St., Grand Junction, Colo., has requested assistance of the Defense Minerals Exploration Administration to explore their Fort Knox sublease (figs. 1 and 2) for uranium. Their DMEA application requests participation in completing a two stage exploration program consisting of 37 size AX diamond drilled holes totaling 13,670 feet, at an over all cost of $69,329.00. The proposed program would explore the potentially ore bearing sandstones of the Salt Wash member of the upper Jurassic Morrison formation.

Field examination was made on May 10, 1955, by a Geological Survey and Bureau of Mines examining team, accompanied by a representative of the applicant.

ACKNOWLEDGMENTS

Harold A. Culp, consulting geologist of Geo-Engineering and a director in Urado Uranium, Inc., accompanied the examining team and represented the applicant.

Howard F. Albee, geologist of the Geological Survey at Grand Junction, was the Geological Survey member of the examining team. He was accompanied by D. R. Shawe and E. L. Boudette, members of the Geological Survey who are familiar with the area.

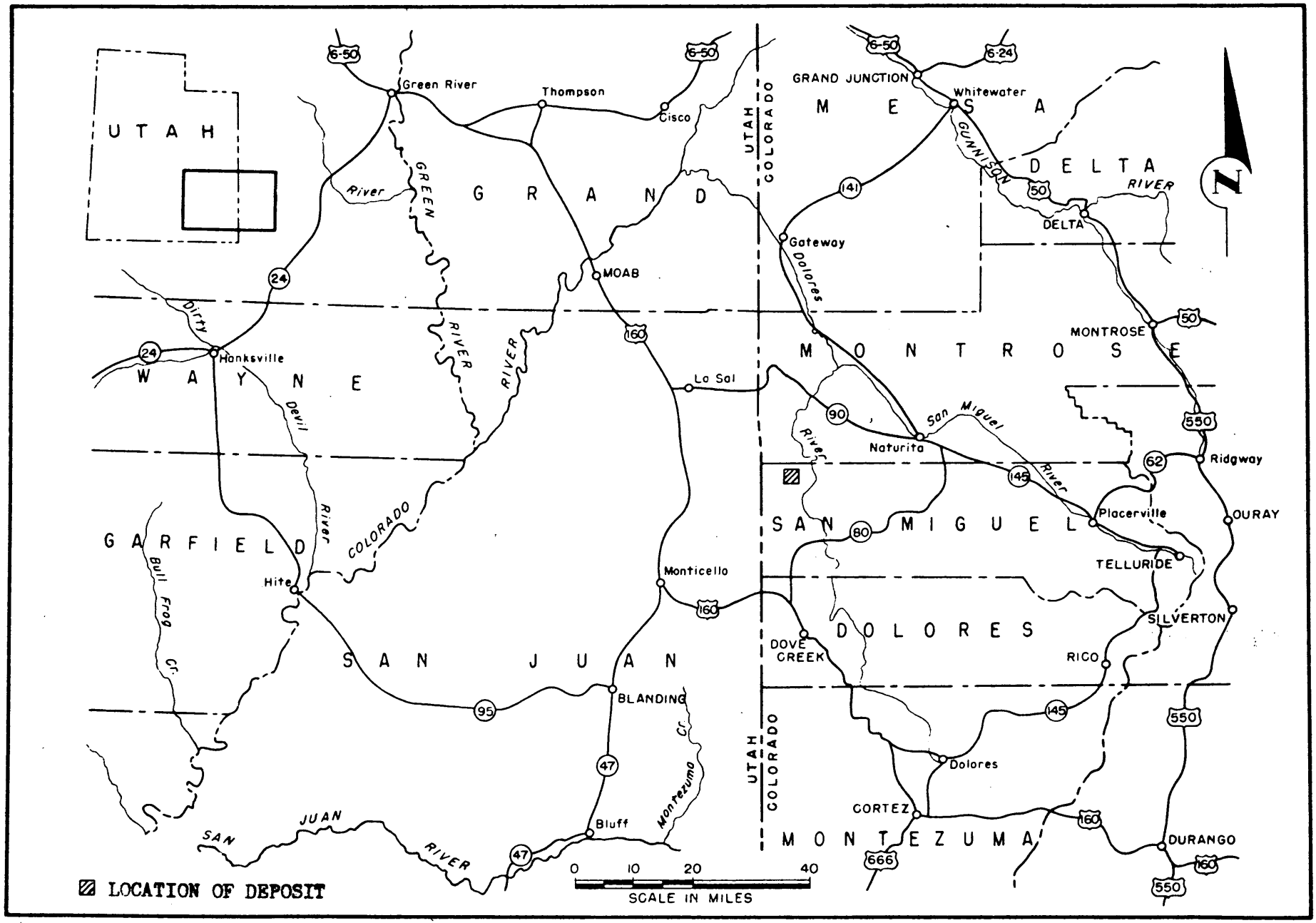

FIGURE 1 - LOCATION MAP, FORT KNOX SUB-LEASE, URADO URANIUM, INC., SAN MIGUEL, COUNTY, COLO. DMEA 3721

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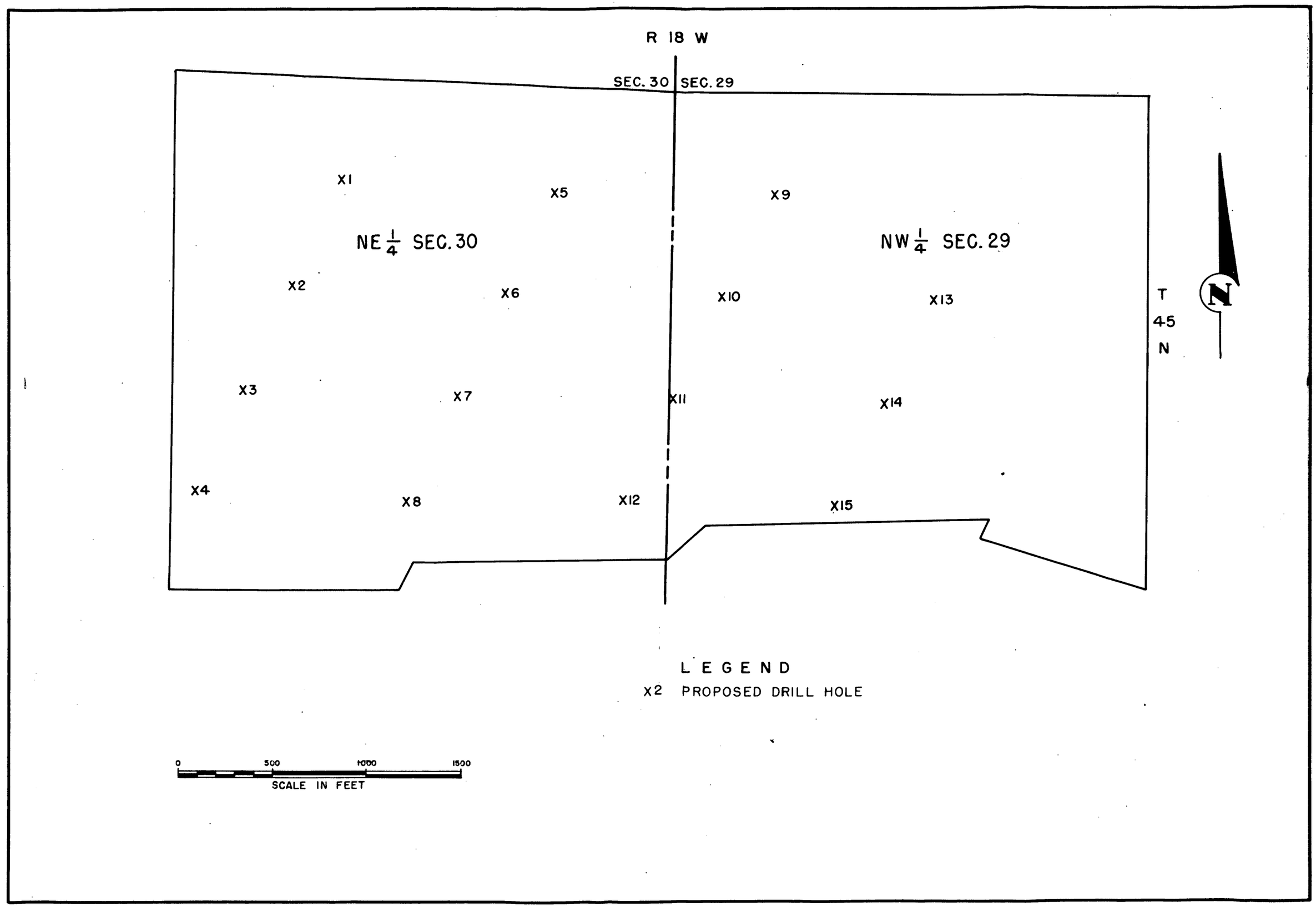

FIGURE 2 - MAP OF FORT KNOX SUB-LEASE AND PROPOSED EXPLORATION, URADO URANIUM, INC., SAN MIGUEL COUNTY, COLO. DMEA 3721

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LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Fort Knox sublease consists of the northwest quarter of sec. 29 and the northeast quarter of sec. 30, in T. 45 N., R. 18 W., N.M.P.M., in the Lower San Miguel Mining District of San Miguel County, Colo. This lease is on the northwest end of Gypsum Valley. It is just southwest of the Dolores River, about 1-1/2 miles from where the main road into Gypsum Valley crosses the river. The property is in steep and rugged terrain which is partly accessible by Jeep trails. Altitude of the property is between 5,400 and 6,600 feet above sea level.

The property is about 40 miles from Naturita, Colorado; 55 miles from Uravan, Colorado; 55 miles from Monticello, Utah; and 150 miles from Durango, Colorado. All of the above towns have mills and uranium ore purchasing facilities. The nearest railroad facilities are at Ridgway on the Denver, Rio Grande Western Railroad, 105 miles distant.

Labor, supplies and light equipment are obtainable locally and from towns in the area.

Annual rainfall is light and the area is classed as semi-arid. Winter snowfalls seldom exceed 6 inches and mining operations could be maintained on a year-around basis. Water for drilling and mining is obtainable from the nearby Dolores River. Domestic water can be hauled from Slick Rock or Naturita.

HISTORY AND PRODUCTION

Prospecting for uranium became of interest following the introduction of Government purchasing program in 1948. Some ore was reported mined from the adjoining Haymaker and Sunset lodes during 1920. It is

reported that about 1,000 tons of vanadium ore was produced from the Sunset claim during World War II. There has been no production from the Fort Knox sublease to date.

The subject ground was sub-leased from Simpson Mining Company, et al., who hold a lease from the Atomic Energy Commission on this and other contiguous land.

OWNERSHIP AND EXTENT

The Atomic Energy Commission granted mining lease, No. AT(05-1)-OG-10 to Simpson Mining Company effective as of March 1, 1953. The lease was for mining uranium bearing ores in the east half of sec. 30, the west half of sec. 29, the north half of the northeast quarter of sec. 31, and the north half of the northwest quarter of sec.32, all in T. 45 N., R. 18 W., N.M.P.M., San Miguel County, Colo., excepting all mining claims located prior to the effective date of this agreement. The lease is in effect for as long as the lessee complies with the terms of the lease.

On November 9, 1954, Simpson Mining Company of Grand Junction, Colorado; Arthur Hamilton and Otis Phillips, Jr., of Dallas, Texas; John W. Harris, W. D. McDavid, Rex Phillips, and Graham B. Ladd of San Antonio, Texas, subleased part of the above mentioned Atomic Energy lease to Urado Uranium, Inc., of 304 Main Street, Grand Junction, Colo.

The sub-lease (fig. 2), known as the Fort Knox sub-lease, covers all of the northwest quarter of sec. 29 and the northeast quarter of sec. 30, T. 45 N., R. 18 W., N.M.P.M., in San Miguel County, Colorado, excepting therefrom all conflicts with the Haymaker, Haymaker Extension,

and Sunset lodes (U. S. Mineral Survey No. 20586). This sublease is for five years and as long thereafter as merchantable ores are mined and sold from the premises.

The lessee, Urado Uranium, Inc., has the right to surrender the sublease on 30 days notice to the lessors.

The lessors, Simpson Mining Company, et al., agree to execute an "Owners Consent to Lien" in orderthat the lessee may obtain DMEA assistance.

This sublease is invalid and illegal for the following reasons.

1. The lessor, Simpson Mining Company, has not complied with section 6 of his mining lease No. AT(05-1)-OG-10 which stipulates that "the lease agreement or any interest therein may be assigned or transferred only upon prior written authorization from the Atomic Energy Commission". D. R. Hill and J. X. Combo, representatives of the Commission at Grand Junction, Colo., state that there is no record of authorization of this lease in the files of the Commission.

2. The sublease was granted by Simpson Mining Company, et al. Since the original lease was granted to Simpson Mining Company only, partners of Simpson Mining Company have no right to grant the sublease, and Simpson Mining Company has again failed to secure written authorization for transfer of their lease to partners outside the Company.

3. The above mentioned representatives of the Atomic Energy Commission stated that the Commission would not agree to the right of the sub-lessee to surrender his sublease with 30 days notice and they question the right of the Lessor, Simpson Mining Company, to execute an "Owners Consent to Lien" without the consent of the Atomic Energy Commission.

DESCRIPTION OF DEPOSITS

There are no known deposits of uranium on the lease and the property is almost completely covered by landslide debris which appears to mask a complexly faulted and broken structure. The upper sandstone units of the Salt Wash member of the Jurassic Morrison formation is recognized as the potentially uranium ore-bearing horizon in this part of Gypsum Valley. Known uranium deposits in the general area are small. There are no favorable or mineralized exposures or defined exploration targets on the property.

MINABLE ORE RESERVES

There are no known ore reserves on the property.

PRESENT STATUS

Exploration and Development

There has been no exploration or mining activity on the property and access to part of the lease is over very steep and rough jeep roads constructed by others for access to other properties.

Mining, milling Equipment, and Other Facilities

There is no equipment or facilities on the property.

PROJECT PROPOSAL AND COSTS

The applicant proposes to explore the Fort Knox sublease with 37 diamond drilled holes aggregating 13,670 feet of which 6,865 feet would be cored. The total over all cost was estimated at $69,329.00 or $5.07+ per foot of hole completed. The exploration program would be carried on in two stages. Stage I would consist of 15 holes (fig. 2)

with a total estimated depth of 5,530 feet. The holes would be 75 to 580 feet deep. Stage II exploration would be dependent upon the results of Stage I and would consist of a maximum of 22 holes with an average depth of 370 feet and totaling 8,140 feet. The applicant's costs are distributed as follows:

Independent Contracts (6a)	Cost	Distribution	
		Non-core drilling	Core drilling
Stage I			
2,755 ft. of non-core (AX) drilling at $2.00 per foot	$5,510.00	$5,510.00	---
700 ft. of size AX core drilling (0-200 ft.) at $2.25 per foot	1,575.00	---	$1,575.00
605 ft. of size AX core drilling (200-300 ft.) at $2.50 per foot	1,512.50	---	1,512.50
790 ft. of size AX core drilling (300-400 ft.) at $2.75 per foot	2,172.50	---	2,172.50
565 feet of size AX core drilling (400-500 ft.) at $4.00 per foot	2,260.00	---	2,260.00
115 ft. of size AX core drilling (500-600 ft.) at $5.00 per foot	575.00	---	575.00
5,530 ft. total	$13,605.00	$5,510.00	$8,095.00
Stage II			
4,050 ft. of non-core drilling at $2.00 per foot	$ 8,100.00	$8,100.00	---
1,040 ft. of size AX core drilling (0-200 ft.) at $2.25 per foot	2,340.00		2,340.00
890 ft. of size AX core drilling (200-300 ft.) at $2.50 per foot	2,225.00		2,225.00
1,160 ft. of AX core drilling (300-400 ft.) at $2.75 per foot	3,190.00		3,190.00
830 ft. of AX core drilling (400 500 ft.) at $4.00 per foot	3,320.00		3,320.00
170 ft. of AX core drilling (500-600 ft.) at $5.00 per foot	850.00		850.00
8,140 ft. total	$20,025.00	$8,100.00	$11,925.00

	Cost	Distribution	
		Non-core drilling	Core drilling
Reaming 4,070 feet at $1.50 per foot	$6,105.00	---	$6,105.00
Casing 810 feet at $2.00 per foot	1,620.00	$ 320.00	1,300.00
Road and drill site preparation	4,100.00	1,500.00	2,600.00
Total Cost of Independent Contracts	$45,455.00	$15,430.00	$30,025.00

The applicant's costs for diamond drilling are comparable with standard drilling bids in the area. Reaming and casing are questionable allowances in the area. The preparation of roads and drill sites is high and should be reduced by 50 percent.

Labor, Supervision and Consultants (6b)

	Cost	Distribution	
		Non-core drilling	Core drilling
Geo-Engineering fees at $1,000 per month	$6,000.00	$3,000.00	$3,000.00
Geo-Engineering expenses at $250 per month	1,500.00	750.00	750.00
Draftsman 50 hours per month at $3.00 per hour	900.00	450.00	450.00
Typist 50 hours per month at $2.25 per hour	675.00	325.00	350.00
Sampler and Field Asst. at $375 per month	2,250.00	1,125.00	1,125.00
Total	$11,325.00	$5,650.00	$5,675.00

The above costs are excessive and officers of the company are also members of the consulting firm. They would total about $5,250.00 for the six months period, employing a geologist-supervisor at $500.00 per month and a sampler-field assistant at $375.00 per month. Costs would be distributed equally between non-core and core drilling.

Operating Materials and Supplies (6c)

Office supplies, map and drill log reproductions, etc. at $150 per month	$ 900.00	$ 450.00	$ 450.00
Engineering supplies	200.00	100.00	100.00
Total	$1,100.00	$ 550.00	$ 550.00

These costs are excessive and would be about $100 for the job as distributed equally between non-core and core drilling. The costs of operating a vehicle for transportation on the job would be an allowable cost on a mileage use basis but was not applied for.

New Buildings, Installations, etc. (6f)

1 - trailer house for project personnel at $50.00 per month	$ 300.00	$ 150.00	$ 150.00
Total	$ 300.00	$ 150.00	$ 150.00

This cost is not allowable as living quarters but would be acceptable for use as a field office.

Miscellaneous (6g)

Accounting expense at $100 per month	$ 600.00	$ 300.00	$ 300.00
Payroll taxes estimated at 10% of $637.50	382.50	191.25	191.25
Analytical work - 350 samples analyzed for U_3O_8, V_2O_5 and $CaCO_3$ at $6.00 per sample	2,100.00	---	2,100.00
Total	$3,082.50	$ 491.25	$2,591.25

Accounting for a project using one drill on a single shift basis is excessive and should not be allowed. Payroll taxes on the basis of one geologist and field assistant would be 5 percent of $5,250.00 or $262.50. Chemical analyses are standard for this area.

Contingencies (6h)

for 6a above - 15% of $45,455.00 or	$6,818.25
for 6b above - 10% of $11,325.00 or	$1,132.50
for 6c above - 20% of $1,100.00 or	$ 220.00
for 6f above - 20% of $ 300.00 or	$ 60.00
for 6g above - 50% of $3,082.50 or	$ 1,541.25
Total	$9,772.00

The contingencies would not be allowable.

The applicant's costs are:

1.	Total cost of the project	$69,329.00
2.	Cost of non-core drilling	$3.99+ per foot
3.	Cost of core drilling (AX size) not including analyses	$6.39+ per foot

Total over all cost per foot of completed hole is $5.20.

The applicants costs are very high.

CONCLUSIONS

The sublease granted Urado Uranium, Incorporated by Simpson Mining Company is invalid and illegal for the reasons mentioned in the text under ownership.

Known uranium ore deposits are small and spotty in the Gypsum Valley area.

There are no encouraging exposures of the Salt Wash member of the Jurassic Morrison formation which is the potentially ore bearing horizon in this area.

Most of the area is covered by landslide debris and there is evidence of complex faulting.

Past Government drilling in the area indicates that core recovery will be poor.

There is no favorable or mineralized trend or defined exploration target on the leased land.

The applicant's proposed exploration program is based only on the indicated presence of the Salt Wash and the optimistic inference of uranium ore bodies. On this basis, his program is a long shot gamble and should be classed as "wild catting" or prospecting.

This program does not meet the requirements of the Defense Minerals Exploration Administration.

At the time of examination, the applicant had started drilling on his Topaz group of claims (DMEA 3719) and stated that he also proposed some drilling on the Fort Knox sub-lease at his own expense.

RECOMMENDATIONS

This application for exploration assistance is recommended denied on the basis of the invalidity of title to ownership of the sublease, the lack of defined exploration targets, and the generally unfavorable and "wild-cat" nature of this search for uranium ore bodies. It is further recommended that denial be without prejudice on the assumption that the applicant can clear up his title and can also present encouraging geologic information from the results of his intended prospect drilling.

/mh

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

DMEA
Date Rec'd. RECEIVED
MAY 26 1955 JUN 17 1955
BUREAU OF MINES
Denver, Colorado

May 25, 1955

TRANSMITTED
JUN - 9 1955

Memorandum

To: Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3721 (Uranium), Urado Uranium, Inc., Fort Knox sublease, San Miguel County, Colorado

Enclosed are 10 copies of a memorandum report by H. F. Albee, U. S. Geological Survey, on the above subject property.

It appears that the applicant company has no legal claim to the ground they propose to explore.

Denial of the application without prejudice appears to be in order. Should Urado Uranium, Inc., secure a valid lease on the Fort Knox claim group, a new application for exploration will receive consideration.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (10)

ENHarshman:arh

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JUN 17 1955

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. BOX 360
GRAND JUNCTION, COLORADO

May 19, 1955

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

From: H. F. Albee Through: W. P. Williams

Subject: DMEA 3721, Urado Uranium, Inc., Fort Knox sublease, San Miguel County, Colo.

Urado Uranium, Inc., 304 Main Street, Grand Junction, Colo., has submitted to the Defense Minerals Exploration Administration an application prepared by Geo-Engineering, 304 Main Street, Grand Junction, Colo. The application, Docket No. 3721, requests DMEA assistance in exploration for uranium on mineral lands formerly known as the Fort Knox claim group, described as follows:

> Northwest quarter (NW$\frac{1}{4}$) of section twenty-nine (29) and the northeast quarter (NE$\frac{1}{4}$) of section thirty (30), Township forty-five (45) north, Range eighteen (18) west, N.M.P.M. in county of San Miguel, Colorado, and excluding therefrom all conflicts with the Haymaker, Haymaker Extension, and Sunset Lodes (U. S. Mineral Survey No. 20586).

The described mineral lands were examined on May 10, 1955, by C. M. Harrer, U. S. Bureau of Mines representative, E. L. Boudette, D. R. Shawe, and Howard F. Albee, U. S. Geological Survey representatives, and Harold A. Culp, Geo-Engineering representative for the applicant.

The above described mineral lands are subleased from the Simpson Mining Company of Grand Junction, Colo. The sublease embraces part of the mineral lands held by U. S. Atomic Energy Commission mining lease No. AT(05-1)-OG-10. Section 6 of mining lease No. AT(05-1)-OG-10 is as follows:

> "This agreement or any interest herein may be assigned or transferred by the lessee only upon prior written authorization from the Commission."

No authorization has been granted Simpson Mining Company to sublease or assign any part of mining lease No. AT(05-1)-OG-10. Therefore, the sub-lease held by Urado Uranium, Inc., should be judged invalid.

The examining team recommends that the application for DMEA assistance be denied without prejudice. If the lease should be validated, a complete geologic report will be submitted.

H. F. Albee

H. F. Albee
Geologist

HFA/mlr