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

JUL - 5 1955

Mr. Louis P. Gaggini, Vice President
Urado Uranium, Inc.
304 Main Street
Grand Junction, Colorado

Re: Docket No. DMEA-3719 (Uranium)
Topaz Group
San Miguel County, Colorado

Dear Mr. Gaggini:

Your application for aid in an exploration project and other information available to us in Washington concerning your above-named property have been reviewed.

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

Careful study of all our information indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied. Such denial, however, is made without prejudice. In the event further work on your part discloses new and more favorable evidence of ore deposition on the property, we shall be pleased to consider a new application.

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

Sincerely yours,

C. O. Mittendorf

Administrator

MChing/gla
6-29-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700 Mr. Ching
DMEA Field Team, Region III (2)

R.C.L.

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

DOCKET COPY

Ching
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June 29, 1955

Summary of Proposed Project

Ocject: Denial of application for an exploration project.

Docket No. DMEA-3719

Commodity: Uranium

Applicant: Urado Uranium, Inc., a Colorado corporation
304 Main Street
Grand Junction, Colorado

Property: The Topaz Group, consisting of 8 unpatented mining claims, Topaz Nos. 1, 10, 11, 13, 22, 23, 24, and 25, located in Sections 9, 10, 15, and 16, T. 44 N., R. 18 W., N.M.P.M. & B., San Miguel County, Colorado. Applicant is the Lessee.

Date of Application: February 28, 1955

Amount of Application: $117,976.00

Work Proposed: 21,985 feet of core and non-core drilling in two stages to explore the Salt Wash member of the Morrison formation. Stage I would consist of 22holes and Stage II of 33 holes. Average depth of holes approximately 400 feet.

Independent contract drilling	$73,819.00
Labor, supervision and consultants	22,650.00
Other costs	6,665.00
Contingencies	14,842.00
Total	$117,976.00
Government participation at 75%	$ 88,482.00

Field Team Report: C. M. Harrer and H. F. Albee, June 3, 1955

The rocks exposed on the property are the Brushy Basin and Salt Wash members of the Morrison formation, and landslide debris derived mostly from the Brushy Basin. Exposures of the Salt Wash are few and confined to a part

Field Team report (continued)

of Topaz No. 13 claim. No exposure of mineralized material was found. Two holes drilled on the Topaz No. 1 claim showed thin sandstone lenses which were mostly underlain by red mudstone, and therefore classified as unfavorable.

A series of southeasterly trending, parallel, normal faults cross the claims. These, together with landslide debris, make geologic interpretations and drilling difficult.

Known ore deposits in the general area are small and difficult to find. Drilling on the nearby Uncle Sam claim indicated two small ore bodies of about 1,500 and 500 tons of 0.20% U_3O_8 ore.

While there is a possibility that uranium deposits may exist on the property, the evidence presented by the Applicant and secured by this field examination fail to show this to be an encouraging geologic probability. The Applicant is now core drilling on the property for his own account. If this work shows favorable criteria or mineralized material, further consideration of an exploration program would be warranted. It is, therefore, recommended that the application be denied without prejudice.

Commodity Committee Members' Comments:

Geological Survey - N. E. Nelson - June 21, 1955

The conclusion of the Field Team that the application should be denied, but be subject to reconsideration if favorable results are obtained in the company drilling, is accepted as well taken.

Bureau of Mines - John E. Crawford - June 24, 1955

Discussed with the Washington representative of the AEC. Concur in the Field Team recommendation that the application be denied.

Rare and Miscellaneous Metals Division - Michael Ching - June 29, 1955

The subject property, in many respects, is similar to that of Uranium Ventures, Inc. (Docket DMEA-3576), which includes 6 Topaz claims to the east. The latter application was denied because known deposits in the area are small and

spotty, the Salt Wash sandstone lenses exposed are of unfavorable thickness, much of the property is covered by landslide debris, depth of drilling is comparatively great (400 ft.), widespread faulting and fracturing present serious geologic and drilling problems, and only one of eleven rather closely spaced holes, drilled by the Operator in the most favorable area on the property, showed significant mineralization. The same conditions prevail on the subject property except that no mineralization has been exposed by drilling or other work. Under the circumstances, the proposed exploration program does not appear to be justified.

Conclusions and Recommendations:

The chances of discovering a significant ore body by the proposed work are not good. Since the Operator is presently drilling on the property it is recommended that the application be denied without prejudice.

Ernest Wm. Ellis

Ernest Wm. Ellis

6/28/55 fa

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

RECEIVED
JUN 27 1955

June 24, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, Docket DMEA 3719 (Uranium), Urado Uranium, Inc., Topaz group, San Miguel County, Colorado

I have reviewed the Field Team report of examination, Docket 3719, and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

We concur in the recommendation of the Field Team that the application be denied.

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

John E. Crawford
John E. Crawford

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

June 24, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, Docket DMEA 3719 (Uranium), Urado Uranium, Inc., Tepee group, San Miguel County, Colorado

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We concur in the recommendation of the Field Team that the application be denied.

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

John E. Crawford

JECrawford:et
Copy to: Div. of Minerals
Br. of Rare and Precious Metals
J. O. Hosted (2)
J. E. Crawford (2)
F i l e s

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

June 24, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, Docket DMEA 3719 (Uranium), Uredo Uranium, Inc., Topaz group, San Miguel County, Colorado

I have reviewed the Field Team report of examination, Docket 3719, and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

We concur in the recommendation of the Field Team that the application be denied.

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

John E. Crawford

JECrawford:et
Copy to: Div. of Minerals
Br. of Rare and Precious Metals
J. O. Hosted (2)
J. E. Crawford (2)
F i l e s

Chiey

6/22/55 Gla

IN REPLY REFER TO:

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

RECEIVED
JUN 22 1955

June 21, 1955

Re: DMEA-3719
Urado Uranium Co., Inc.
Topaz Group
San Miguel Co., Colo.
$117,976.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report

The conclusion of the Field Team that the application should be denied, but be subject to reconsideration if favorable results are obtained in the company drilling, is accepted as well taken.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

RECEIVED
JUN 22 1955

June 21, 1955

Re: DMEA-3719
Uraio Uranium Co., Inc.
Topaz Group
San Miguel Co., Colo.
$117,976.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report

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N. E. Nelson

N. E. Nelson

NENelson:hlm
G-6/21/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Hosted, 3210 GSA

IN REPLY REFER TO:

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

RECEIVED
JUN 22 1955

June 21, 1955

Re: DMEA-3719
Urado Uranium Co., Inc.
Togas Group
San Miguel Co., Colo.
$117,976.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report

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N. E. Nelson

N. E. Nelson

NENelson:hlm
G-6/21/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. G. Hosted, 3210 GSA

IN REPLY REFER TO:

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

RECEIVED
JUN 22 1955

June 21, 1955

Re: DMEA-3719
Grado Uranium Co., Inc.
Tepee Group
San Miguel Co., Colo.
$117,976.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report

The conclusion of the Field Team that the application should be denied, but be subject to reconsideration if favorable results are obtained in the company drilling, is accepted as well taken.

N. E. Nelson

N. E. Nelson

NENelson:hlm
G-6/21/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Nosted, 3210 GSA

6/22/55 gla

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

RECEIVED
JUN 15 1955

224 New Customhouse
Denver 2, Colorado

June 9, 1955

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Field Team, Region III

Subject: Report of Examination, Docket DMEA-3719 (Uranium), Urado Uranium, Inc., Topaz group, San Miguel County, Colorado

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

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

W. M. Traver

E. N. Harshman

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
6-20-55
(date)

DMEA
Date Rec'd
JUN 8 1955

JUN 9 1955

BUREAU OF MINES
Denver, Colorado

Region III

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
June 7, 1955

RECEIVED
JUN 15 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw

Subject: Engineering Report, DMEA 3719 (Uranium), Urado Uranium, Inc., Topaz group, San Miguel County, Colorado

Enclosed are the original and eleven copies of a "Summary, Conclusions, and Recommendations" by C. M. Harrer, mining engineer, and H. F. Albee, geologist, and the original and eleven copies of an engineering report by C. M. Harrer, covering docket DMEA 3719.

Urado Uranium, Inc., applied for exploration assistance in the amount of $117,976.00 to explore the Topaz group of claims with 55 diamond drill holes totaling 21,985 feet. The property was examined on May 10, 1955, by an examining team consisting of C. M. Harrer and H. F. Albee. The applicant is now engaged in drilling the group of claims. However, the examining team concluded that there was not sufficient evidence to indicate a possibility of a significant amount of uranium being disclosed by the proposed work.

It is recommended that the application for exploration assistance be denied.

W H King

W. H. King
for
John F. Shaw
Supervising Mining Engineer

Enclosures

cc 11
DMEA 3719
Chron

JFS/cm

Referred to
[illegible]
6-20-55

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

RECEIVED
JUN 15 1955

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3719, Topaz Group

Urado Uranium, Inc.

San Miguel County, Colorado

Uranium

C. M. Harrer, Mining Engineer
Bureau of Mines

Howard F. Albee, Geologist
Geological Survey

June 3, 1955

6-20-55

DMEA 3719

TOPAZ GROUP
URADO URANIUM, INC.
SAN MIGUEL COUNTY, COLORADO

Summary, Conclusions, and Recommendations

By C. M. Harrer
Mining Engineer
Bureau of Mines

Howard F. Albee
Geologist
Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
6-20-55
(date)

DMEA 3719

RECEIVED
JUN 15 1955

TOPAZ GROUP
URADO URANIUM, INC.
SAN MIGUEL COUNTY, COLORADO

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By C. M. Harrer and Howard F. Albee

Urado Uranium, Inc., 304 Main Street, Grand Junction, Colo., has applied for Defense Minerals Exploration Administration assistance to explore the Topaz group of claims, with 55 diamond drill holes totaling 21,985 feet at an over-all cost of $117,976.00.

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 examiners and represented the applicant.

The Topaz group of unpatented lode claims Nos. 1, 10, 11, 13, 22, 23, 24 and 25 are in secs. 9, 10, 15 and 16, T. 44 N., R. 18 W., New Mexico principal meridian, in the Lower San Miguel Mining District, San Miguel County, Colo.

The rocks exposed on the Topaz group of claims are the Brushy Basin and the Salt Wash members of the Upper Jurassic Morrison formation, and landslide debris derived mostly from the Brushy Basin. Exposures of the Salt Wash are few and show the sandstone lenses to be thin. No mineralized material crops out on the claims.

A series of southerly trending, parallel, normal faults cross the claims. The down thrown sides are all to the north, which has caused a steep, rough slope that presents difficult geologic and drilling problems.

Two holes have been drilled on the Topaz No. 1 claim. Their logs show thin sandstone units mostly underlain by red mudstone. The drill holes should be classified as unfavorable.

Known ore deposits in the general area are small and difficult to find.

While there is a possibility that uranium deposits may exist on the property, insufficient evidence is presented by the applicant and by a surface examination to show this to be an encouraging geologic probability. The applicant is now core drilling the group of claims. If this drilling program, at the applicant's expense, shows favorable criteria or mineralized material, further consideration of the applicant's exploration program is warranted.

The examining team, therefore, recommends that this application for exploration assistance be denied without prejudice.

DMEA 3719

TOPAZ GROUP
URADO URANIUM, INC.
SAN MIGUEL COUNTY, COLORADO

Engineering Report

Reviewed by
DMEA OPERATING COMMITTEE
6-20-55
(date)

By C. M. Harrer
Mining Engineer
Bureau of Mines

DMEA 3719

TOPAZ GROUP
URADO URANIUM, INC.
SAN MIGUEL COUNTY, COLORADO

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ILLUSTRATIONS

Figure — Follows page

1. Location map, Topaz group, Urado Uranium, Inc., San Miguel County, Colo..... 2
2. Property map showing proposed exploration, Topaz claims, Urado Uranium, Inc., San Miguel County, Colo..... 2

DMEA 3719

TOPAZ GROUP
URADO URANIUM, INC.
SAN MIGUEL COUNTY, COLORADO

ENGINEERING REPORT

By C. M. Harrer

INTRODUCTION

Urado Uranium, Inc., a Colorado corporation with offices at 304 Main Street, Grand Junction, Colo., has requested Defense Minerals Exploration Administration assistance to explore their Topaz group of 8 unpatented lode claims for uranium. They propose a two stage diamond drilling program consisting of 55 holes, totaling 21,985 feet, at an over-all cost of $117,976.00. The proposed exploration is to test the approximate middle third of the Salt Wash member of the Jurassic Morrison formation.

A joint field examination was made by a Geological Survey and Bureau of Mines examining team on May 10, 1955.

ACKNOWLEDGMENTS

Harold A. Culp, consulting geologist and a director in the applicant company, accompanied the examining team and represented the applicant.

W. P. Williams, geologist, Colorado Plateau District, Geological Survey, Grand Junction, Colo., assigned H. F. Albee, geologist, to make the examination as the Geological Survey member of the team. Albee was accompanied by D. R. Shawe and Gene Boudette, geologists, of the Grand Junction Branch, Geological Survey.

Reviewed by
DMEA OPERATING COMMITTEE
6-20-55
(date)

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Topaz group of 8 unpatented lode claims (figs. 1 and 2), with the exception of Topaz No. 13, are a contiguous group. All claims are in secs. 9, 10, 15 and 16, T. 44 N., R. 18 W., New Mexico principal meridian, in the Lower San Miguel Mining District in San Miguel County, Colorado, figures 1 and 2. The claims are in the southern part of the Uravan mineral belt at altitudes between 5,600 and 6,300 feet above sea-level. The claims are along the southwest slope of Big Gypsum valley in an extremely faulted area.

Precipitation is moderate to light and year around operations are feasible. The climate is semi-arid. Water for drilling purposes is obtainable from the Dolores River, about 4 miles distant. Water for domestic use is obtainable from Naturita or Slick Rock.

The claims are accessible over 12 miles of gravelled and dirt roads that connect with Colorado State Highway 80 at Gypsum Gap. The nearest mills and ore depots are at Naturita 40 miles distant, Uravan 55 miles distant, Monticello, Utah, 75 miles distant and Durango 155 miles distant.

Labor, supplies and light equipment can be obtained in Naturita, Norwood and Uravan. Heavy equipment can be obtained at Grand Junction. The nearest railroad is the Denver and Rio Grand Western at Ridgway.

HISTORY AND PRODUCTION

Intermittent mining of vanadium ore has been carried on in the Gypsum Valley area for a considerable period of time, however, it was not until the start of the Government buying schedules in 1948 that prospecting for uranium became of interest. The Topaz claims were

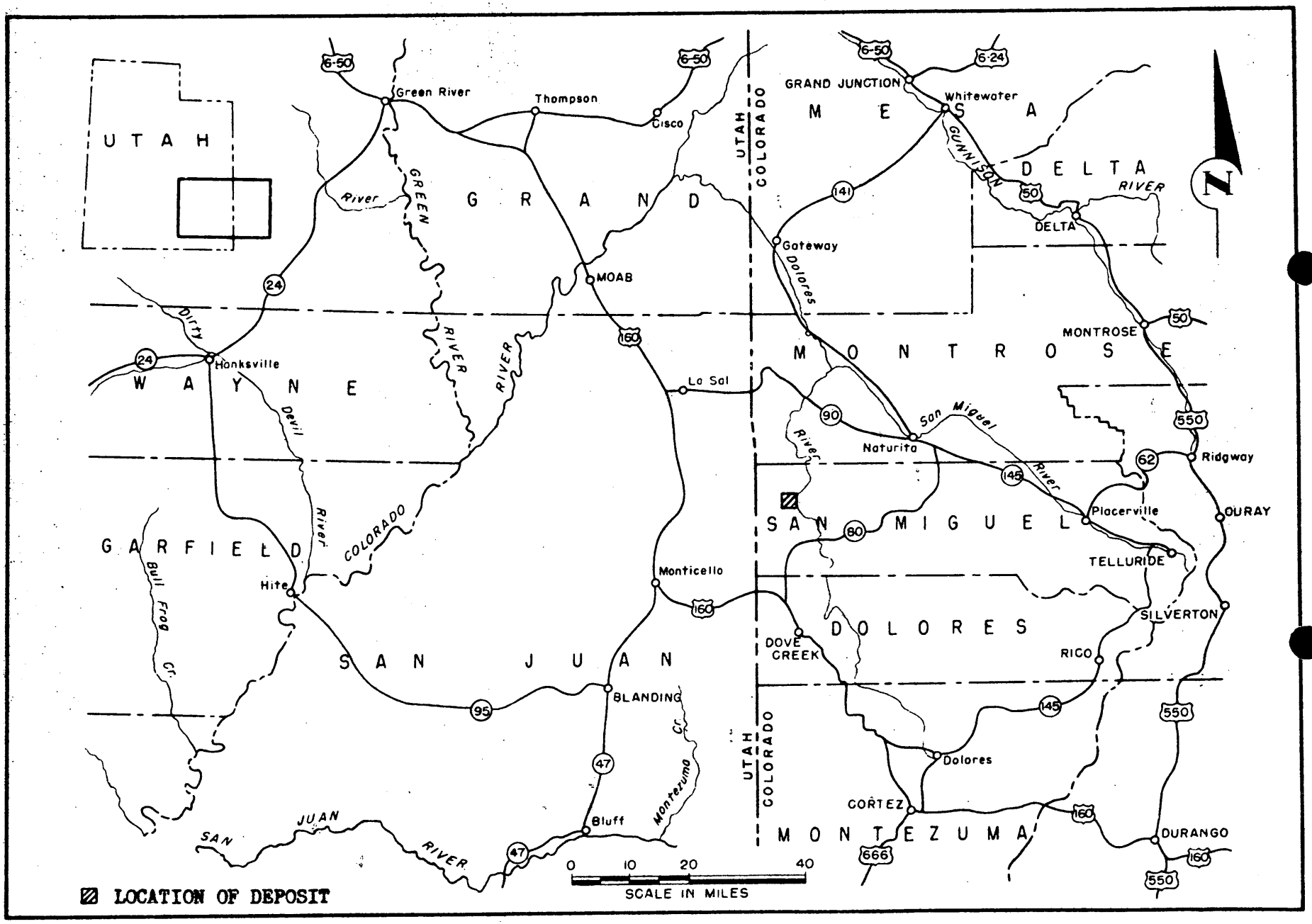


FIGURE 1 - LOCATION MAP, TOPAZ CLAIMS, URADO URANIUM, INC., SAN MIGUEL COUNTRY, COLO. DMEA 3719

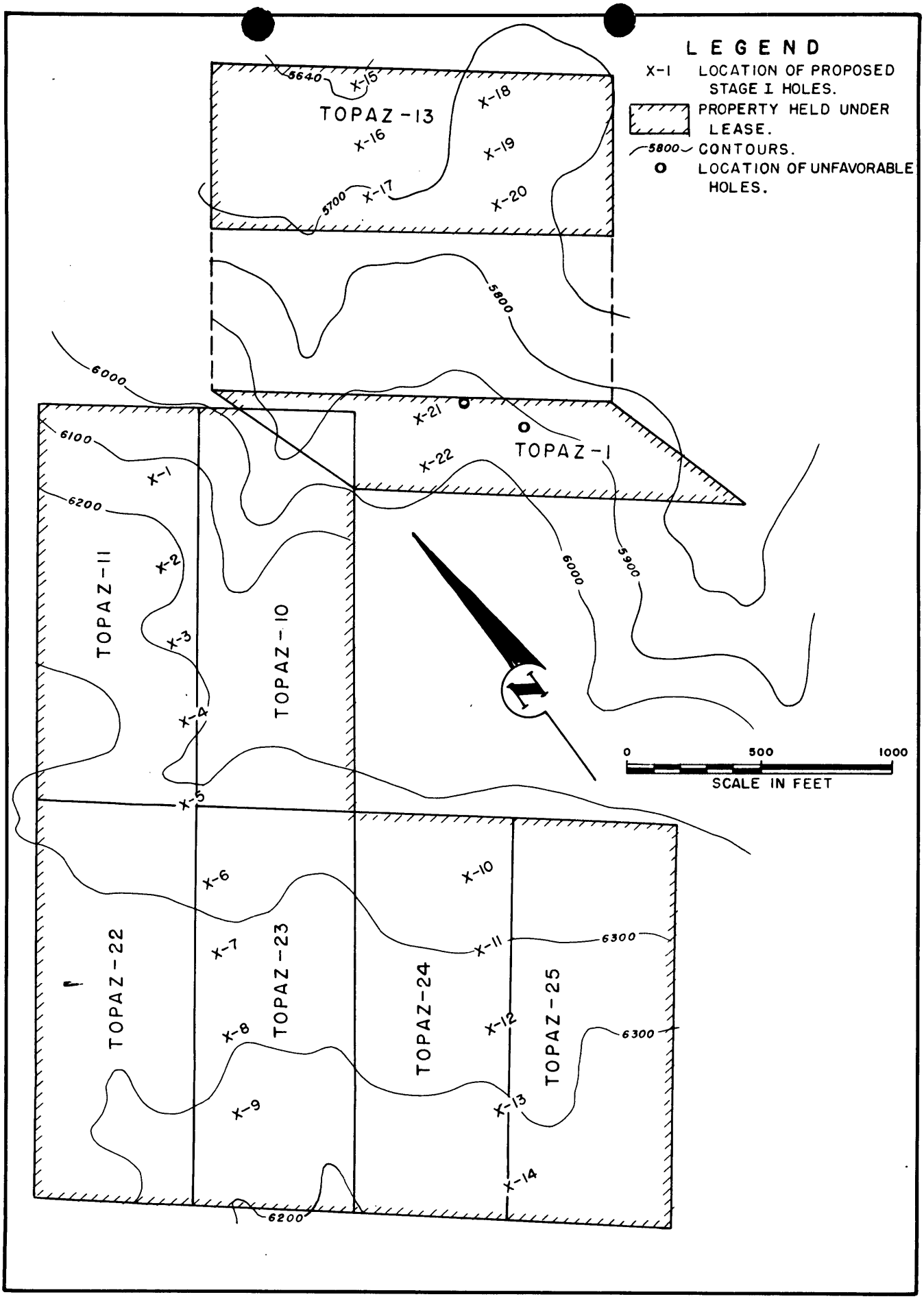


FIGURE 2 – PROPERTY MAP SHOWING PROPOSED EXPLORATION, TOPAZ CLAIMS, URADO URANIUM, INC., SAN MIGUEL COUNTY, COLO. DMEA 3719

located during January 1953 by a partnership consisting of Simpson Mining Company of Grand Junction, Colo., and various partners in Texas. There are no mine workings on the property which has had no production to date.

OWNERSHIP AND EXTENT

Urado Uranium, Inc., controls the unpatented lode locations Topaz Nos. 1, 10, 11, 13, 22, 23, 24 and 25 (fig. 2) under two lease agreements for 5 years, dated March 16 and November 9, 1954. The leases include options for renewal for additional 5-year periods.

The lessees, Urado Uranium, Inc., are closely affiliated with Geo-Engineering, a firm of mining consultants at Grand Junction. Officers of the applicant company are also members of Geo-Engineering.

The lessors are a partnership consisting of Alan M. and Julian E. Simpson, partners in Simpson Mining Co., of Grand Junction; Arthur Hamilton and Otis Phillips, Jr., of Dallas, Texas; J. W. Harris, W. D. McDavid, Rex Phillips and G. B. Ladd, of San Antonio, Texas.

The claims are in secs. 9, 10, 15 and 16, T. 44 N., R. 18 W., in the lower San Miguel Mining District of San Miguel County, Colo. The claims are recorded in the office of the County Clerk and Recorder of San Miguel County at Telluride, Colo., as follows:

Claim	Type of Instrument	Book	Page	Date of Location	Date Recorded
Topaz-1	Lode location	216	421	1/19/53	4/17/53
	Amended lode location (Public law 585)	240	499	8/18/54	8/27/54
Topaz-10	Lode location	216	425	1/19/53	4/17/53
	Amended lode location (Public law 585)	240	508	8/19/54	8/27/54

Claim	Type of Instrument	Book	Page	Date of Location	Date Recorded
Topaz-11	Lode location	216	426	1/19/53	4/17/53
	Amended lode location (Public law 585)	240	509	8/19/54	8/27/54
Topaz-13	Lode location	216	426	1/19/53	4/17/53
	Amended lode location (Public law 585)	240	510	8/19/54	8/26/54
Topaz-22	Lode location	216	430	2/12/53	4/30/53
	Amended lode location (Public law 585)	240	518	8/19/54	8/26/54
Topaz-23	Lode location	216	431	2/12/53	4/30/53
	Amended lode location (Public law 585)	240	519	8/19/54	8/26/54
Topaz-24	Lode location	216	431	2/11/53	4/30/53
	Amended lode location (Public law 585)	240	520	8/19/54	8/26/54
Topaz-25	Lode location	216	432	2/11/53	4/30/53
	Amended lode location (Public law 585)	240	521	8/19/54	8/26/54

There are no known liens or encumbrances on the property.

DESCRIPTION OF THE DEPOSITS

Rocks exposed on the claims are the Brushy Basin and Salt Wash members of the Jurassic Morrison formation. The area is cut up by numerous faults and partly masked by landslide debris. Exposures of the potentially ore bearing Salt Wash member are few and indicate that the sandstone lenses are probably thin. No mineralized material crops out on the claims although some uranium bearing float has been noted. The logs of two holes drilled on the Topaz No. 1 claim showed thin sands underlain by red mudstone and no uranium mineralization and are classed as unfavorable.

MINABLE ORE RESERVES

There are no estimable ore reserves on the property.

PRESENT STATUS

Exploration and Development

There are no active mining operations on the Topaz group of claims and no evidence of prior exploration. On the day of examination, May 10, 1955, Urado Uranium, Inc., had contracted for diamond drilling with Minerals Engineering of Grand Junction and one drill was started on the Topaz No. 1 claim. H. A. Culp of Urado Uranium, Inc., stated that they propose to do some exploration drilling on their Topaz group of claims and their Fort Knox sublease (DMEA 3721).

The logs of two holes drilled on the Topaz No. 1 claim were submitted by the applicant.

Mining, Milling and Other Facilites

There are no facilities on the property other than steep and rough access roads.

PROJECT PROPOSAL AND COSTS

Urado Uranium, Inc., proposes to explore the approximate middle third of the Salt Wash member of the Jurassic Morrison formation for uranium with a two stage drilling program, using a single diamond drill on a single shift basis. Stage I would consist of 22 holes on a roughly 300- by 1,000-foot grid (fig. 2). Holes would be 30 to 690 feet deep, totaling 8,785 feet. Stage II would be dependent upon the results obtained from Stage I and would consist of a maximum of 33 holes averaging 400 feet deep and totaling 13,200 feet. The over-all cost of drilling the total of 21,985 feet of hole, including all services has been estimated at $117,976.00. Government participation of 75 percent would be $88,482.00.

The applicant has submitted costs which are generally too high for the work to be accomplished: They are distributed as follows:

Independent contracts: (6a)

Stage I

5,165 feet non core (AX) drilling at $2.00 per foot	$10,330.00	
775 feet (AX) core drilling (0-200 feet) at $2.25 per foot	1,743.75	
440 feet (AX) core drilling (200-300 feet) at $2.50 per foot	1,100.00	
455 feet (AX) core drilling (300-400 feet) at $2.75 per foot	1,251.25	
730 feet (AX) core drilling (400-500 feet) at $3.25 per foot	2,372.50	
850 feet (AX) core drilling (500-600 feet) at $4.00 per foot	3,400.00	
370 feet (AX) core drilling (600-700 feet) at $5.00 per foot	1,850.00	
8,785 feet Total		$22,047.50

Stage II

7,760 feet non core (AX) drilling at $2.00 per foot	$15,520.00	
1,160 feet (AX) core drilling (0-200 feet) at $2.25 per foot	2,610.00	
660 feet (AX) core drilling (200-300 feet) at $2.50 per foot	1,650.00	
690 feet (AX) core drilling (300-400 feet) at $2.75 per foot	1,897.50	
1,095 feet (AX) core drilling (400-500 feet) at $3.25 per foot	3,558.75	
1,280 feet (AX) core drilling (500-600 feet) at $4.00 per foot	5,120.00	
555 feet (AX) core drilling (600-700 feet) at $5.00 per foot	2,775.00	
13,200 feet Total		$33,131.25

Reaming 6,600 feet at $1.50 per foot	9,900.00
Casing 1,320 feet at $2.00 per foot	2,640.00
Road and drill site preparation	6,100.00
Total cost of independent contracts	$73,818.75

The applicant's costs for diamond drilling are comparable with standard drilling bids in the area. Reaming and casing are probably

justifiable in the severely faulted area. The cost of preparing roads and drill sites is high and a fair estimate would not exceed $5,000.00.

Labor, supervision and consultants: (6b)		Cost for Project
Geo-Engineering fees at $1,000.00 per month	$12,000.00	
Geo-Engineering expenses at $250.00 per month	3,000.00	
Draftsman at $3.00 per hour or $150.00 per month	1,800.00	
Typist at $2.25 per hour or $112.50 per month	1,350.00	
Sampler-field assistant at $375.00 per month	4,500.00	
Total		$22,650.00

The above costs are excessive and should not exceed $11,000.00 under any circumstances and assuming a full time field geologist or engineer at $500.00 per month.

Operating materials and supplies: (6c)		Cost for Project
Office supplies, map and drill log reproductions, etc. at $150.00 per month	$1,800.00	
Survey stakes and field supplies	200.00	
Total		$2,000.00

These costs are excessive and would be about $300.00 for the job.

New buildings, installations, etc.: (6f)	Cost for Project
1 trailer house for project personnel at $50.00 per month	$600.00

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

Miscellaneous: (6g)		Cost for Project
Accounting expenses at $100.00 per month	$1,200.00	
Payroll taxes at 10 percent of $637.50	765.00	
Analytical work (350 samples for U_3O_8, V_2O_5 and $CaCO_3$)	2,100.00	
Total		$4,065.00

Accounting for a project using one drill on a single shift basis is excessive and should not be allowed. Payroll taxes in this case would be 5 percent of $11,000.00 or $550.00. Chemical analyses are standard for the area.

Contingencies: (6h)		Cost for Project
for 6a above 15 percent of $73,818.75	$11,073.00	
for 6b above 10 percent of $22,650.00	2,265.00	
for 6c above 20 percent of $ 2,000.00	400.00	
for 6f above 20 percent of $ 600.00	120.00	
for 6g above 50 percent of $ 1,965.00	984.00	
Total		$14,842.00

The contingencies are not allowable.

Total cost of the project	$117,975.75
The applicant's estimate is	$117,976.00

Total cost of drilling 21,985 feet of size AX hole, including the preparation of access roads and drill sites but not analysis of samples is estimated by the applicant at $5.27 per foot. This is very high.

Total over-all cost per foot of hole is estimated as $5.37 per foot.

CONCLUSIONS

The property is largely covered by landslide debris and is cut by numerous faults and presents difficult geologic and exploration drilling problems.

Exposures of the potentially ore bearing Salt Wash formation are few and indicate that sandstone lenses are probably thin.

While a few pieces of uranium float were reported, no mineralized material crops out on the claims.

The logs of two drill holes on the Topaz No. 1 claim show thin sandstones underlain by red mudstone, and no uranium mineralization. They are considered unfavorable.

While there is a possibility that uranium deposits occur on the property, the lack of evidence and the severe faulting make this a questionable geologic possibility and places the search for uranium here in the prospecting or "wild-cat" class. It, therefore, does not meet the standards set up by DMEA.

The applicant is now core drilling the Topaz claims at his own expense and may be able to present favorable criteria or evidence of uranium mineralization. If this is so, the applicant's proposals for additional exploration may warrant further consideration.

RECOMMENDATIONS

The application of Urado Uranium, Inc., for assistance to explore their Topaz group of claims is recommended denied without prejudice and may be re-considered if the results of his prospect drilling prove favorable.

/cm

IN REPLY REFER TO:

RECEIVED
JUN 15 1955
DMEA
Date Rec'd

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

JUN 7 1955
BUREAU OF MINES
Denver, Colorado

TRANSMITTED June 7, 1955

JUN 9 1955

Memorandum

To: Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3719 (uranium), Urado Uranium, Inc., Topaz group, San Miguel County, Colorado

Enclosed are 10 copies of a geologic report by H. F. Albee, U. S. Geological Survey, recommending denial without prejudice of the request for exploration assistance on the subject property.

The recommendation is based on factors as follows:

1) There are no known targets on the claims and no mineralized outcrops are known to exist on them.

2) The logs of two holes drilled on the Topaz No. 1 claim indicate that the Salt Wash sandstone in that area is unfavorable for uranium deposits.

3) Extensive faulting and considerable landslide debris make geologic interpretations difficult and will complicate drilling.

I concur with the recommendation that the application be denied without prejudice. Should drilling now being done by the applicant indicate the presence of certain favorable areas, a reexamination of the property might be warranted.

A report (DMEA Docket 3576) on another Topaz group of claims, lying immediately east of the subject claim group, also recommended denial of that request for exploration assistance.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (10)

ENHarshman:arh

Approved by
DMEA DIRECTOR [illegible]
6-20-55
(date)

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

JUN 6 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

TRANSMITTED

June 3, 1955

JUN 9 1955

MEMORANDUM

RECEIVED
JUN 15 1955

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

From: W. P. Williams

Subject: DMEA 3719, Urado Uranium, Inc., Topaz group, San Miguel County, Colo.

Transmitted herewith are 12 copies of a geologic report by H. F. Albee, covering a field examination of the above-referenced property.

The Salt Wash sandstone member of the Morrison formation, the ore host, crops out only on part of Topaz No. 13 claim. The Brushy Basin member of the Morrison and landslide material cover the remaining surface of the claims. The claims are in a highly faulted area; consequently, drilling of any kind would be extremely difficult and the problem of estimating drill hole depths is a difficult, if not an impossible one. The ore-bearing sandstone, from outcrops and from two drill holes on the property, is unfavorable for uranium ore deposits on the basis of sand thickness and color of associated mudstone. The applicant has not shown that the probability is good that either mineralized material or favorable geologic conditions will be found by an exploration program. Albee recommends that the application be denied without prejudice until such time as the applicant can show that favorable geologic conditions are present on the property and that an exploration program would have a good chance of finding a significant uranium ore deposit. I concur with his recommendations.

Members of the Exploration Division, U. S. Atomic Energy Commission, Grand Junction Operations Office, were asked for advice in evaluating the property. The Commission had no specific data about the property.

We are returning herewith the brochure covering this application.

W P Williams

W. P. Williams
Geologist

WPW/mlr

Enclosures

Returned by
DMEA [illegible]
6-20-55
(Date)

UNITED STATES DEPARTMENT OF THE INTERIOR

DOUGLAS McKAY, SECRETARY

RECEIVED
JUN 15 1955

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3719, Urado Uranium, Inc., Topaz group, San Miguel County, Colorado

Uranium

Geologic Report

by

Howard F. Albee
U. S. Geological Survey

June 3, 1955

Reviewed by
DMEA OPERATING COMMITTEE
6-20-55
(date)

DMEA 3719

INTRODUCTION

Urado Uranium, Inc., 304 Main Street, Grand Junction, Colorado, has submitted an application, prepared by Geo-Engineering, 304 Main Street, Grand Junction, Colorado, to the Defense Minerals Exploration Administration. The application, Docket No. 3719, requests DMEA assistance in exploration for uranium ore on part of the Topaz group of claims, Big Gypsum Valley area, secs. 9, 10, 15, and 16, T. 44 N., R. 18 W., New Mexico Principal Meridian, Gypsum Valley mining district, San Miguel County, Colorado.

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

GEOLOGY AND ORE DEPOSITS

The Topaz group of claims lies across a fault zone on the southwest side of Gypsum Valley. The valley was formed by the subsidence of an anticlinal crest during partial solution of underlying salt bed. The claims are on the Brushy Basin and Salt Wash members of the Upper Jurassic Morrison formation.

The Brushy Basin member consists of about 400 feet of green, brown, and gray mudstone and minor lens-shaped beds of siltstone, sandstone, and conglomeratic sandstone. The contact with the underlying Salt Wash member is commonly gradational, but in places it is placed at the base of the lowermost conglomeratic sandstone in the Brushy Basin.

The Salt Wash sandstone member consists of about 350 feet of light gray and pale brown, fine- to medium-grained sandstone and red and greenish gray mudstone. The sandstone and mudstone, in the Gypsum Valley area, are in about equal proportions.

The Salt Wash sandstone crops out on part of one claim, Topaz No. 13, whereas the Brushy Basin and landslide material derived from the Brushy Basin covers the surface within the remaining claims. No exposure of mineralized material is known within the group of claims.

The area is on the southwest dipping limb of the ancestral anticline, and is entirely within the fault zone that resulted from the subsidence of the anticlinal crest. Topaz Nos. 22, 23, 24, and 25, although they are cut by 3 southwest trending normal faults, appear to be on the least disturbed part of the area. At least three north trending, parallel, normal faults with vertical displacements of from 20 feet to 100 feet are in Topaz Nos.10 and 11. Field evidence indicates that these faults are cut by an east trending diagonal slip fault with a fault surface dip to the south of about 75°. The amount of displacement is not determinable but is, at the minimum, several tens of feet. A U. S. Geological Survey map shows other faults in the area, some of which pass through the group of claims.

Two diamond drill holes, 80 feet and 135 feet deep, on the Topaz No. 1 had no mineralized material. Both holes were logged and on the basis of sand thickness and color of mudstone should be classified as unfavorable. The thickest sand is logged at 14.4 feet thick and is underlain by red mudstone. No exact minimum figure can be given for a sand thickness to remain favorable, but as a sand decreases in thickness from about 25 to 30 feet it becomes increasingly unfavorable.

Although several patented claims are in the immediate vicinity of the Topaz group, no production has been reported from them since the beginning of AEC records in 1948. Core drill logs of holes drilled in one of the patented claims, the Uncle Sam, indicates two ore bodies about 100 feet apart and with their long axes in one west trending line. One ore body is indicated to be about 1,500 tons and one about 500 tons, each with a grade of about 0.20 percent U_3O_8 or better and a vanadium-uranium ratio of about 8 to 1. The ore bodies in the Gypsum Valley mining district range from about 100 tons to 10,000 tons and average about 2,000 tons. The discovery of ore deposits within this range on the subject claims is a possibility, but because of the poor exposures and absence of mineralized material, the geologic probability cannot be evaluated as good.

PROPOSED EXPLORATION

Twenty-two drill holes are proposed for stage I drilling, to be placed on a 300-foot by 1,000-foot grid. The grid is to be oriented such that the 300-foot dimension is normal to the ore trend (projected by the applicant into the area from the drill holes on the Uncle Sam claim) and staggered so that a hole in one row is between two 300-foot spaced holes in the next row. Thirty-three holes are proposed for stage II drilling, and are to be placed in the areas judged to be favorable as delineated by stage I holes.

CONCLUSIONS AND RECOMMENDATIONS

Some of the proposed drill holes fall in an area of many faults where no prediction can be made as to depths or geology. The estimated depths are based on a favorable zone that was projected by information from districts both nearby and several miles distant. Such information cannot be projected more than a few tens or a few hundreds of feet. The resulting cross-section that delineates the favorable zone is an idealized generalization. However, the applicant currently is drilling on the group of claims and if this drilling program, at his expense, can show favorable criteria or mineralized material, the claims would warrant a re-examination.

It is recommended that the application be denied without prejudice for the following reasons: 1) The applicant has proposed a drilling program which is of a wildcat nature; 2) the drill logs from Topaz No. 1 indicate unfavorable host rock criteria; 3) extensive faulting and landslide debris presents difficult drilling and geologic problems; and 4) no mineralized material is known on the claims.

If the applicant can show mineralized material in a favorable environment by his current drilling program, it is recommended that the application be re-examined.

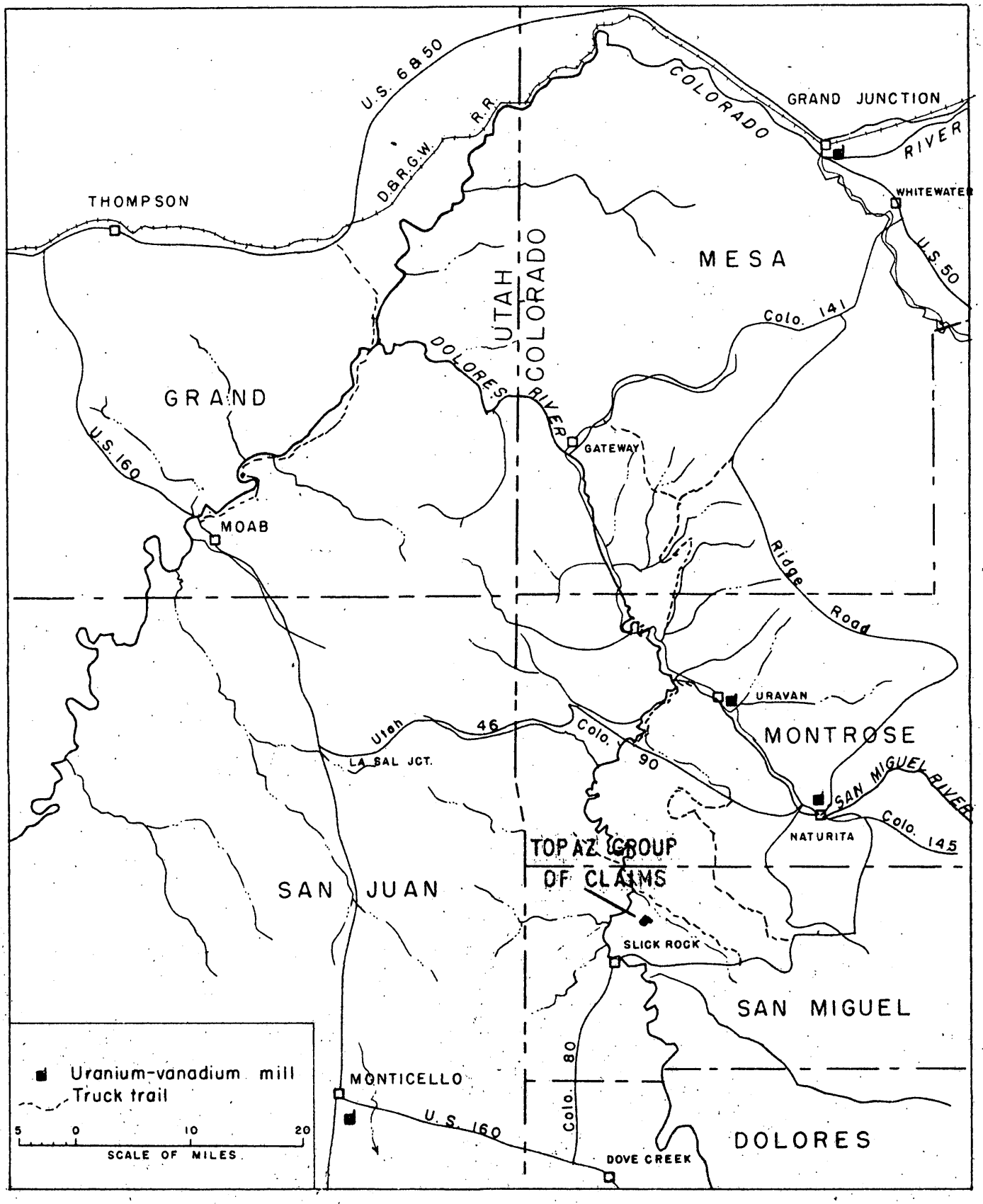
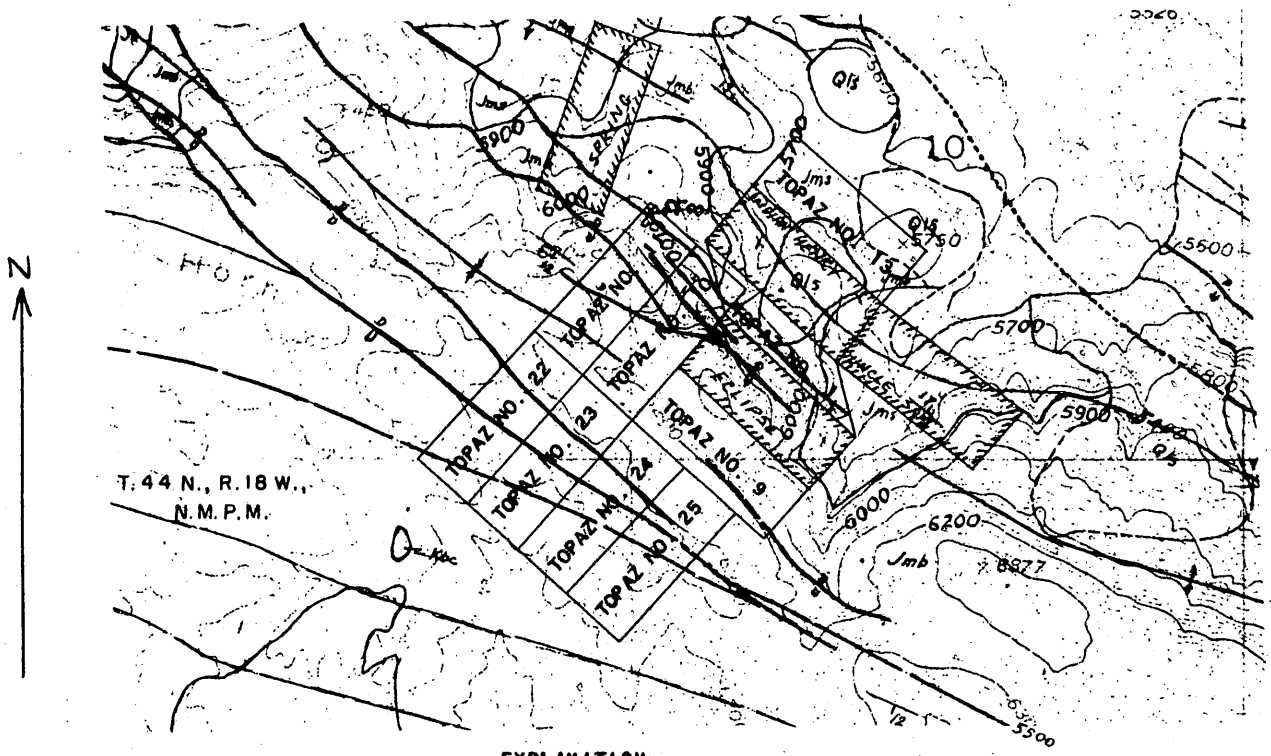


Figure 1. INDEX MAP OF PART OF THE COLORADO PLATEAU SHOWING LOCATION OF TOPAZ GROUP OF CLAIMS, URADO URANIUM INC., SAN MIGUEL COUNTY, COLORADO



EXPLANATION

Qls — QUATERNARY LANDSLIDE DEBRIS	AXIS OF SYNCLINE
Kbc — CRETACEOUS BURRO CANYON	FORMATION CONTACT, DASHED WHERE INFERRED
Jmb — JURASSIC BRUSHY BASIN MEMBER OF MORRISON FORMATION	FAULT, SHOWING RELATIVE MOVEMENT
Jms — JURASSIC SALT WASH MEMBER OF MORRISON FORMATION	5700 — SURFACE CONTOUR LINE
12 — STRIKE AND DIP OF BEDS	5500 — STRUCTURE CONTOUR ON TOP OF ENTRADA SANDSTONE
	PATENTED CLAIM BOUNDARY

Note: BASE FROM U.S.G.S. PRELIMINARY GEOLOGIC QUADRANGLE MAP HAMM CANYON

2000 0 4000 FEET

CONTOUR INTERVAL 100 FEET
DATUM IS MEAN SEA LEVEL

Figure 2. MAP OF PART OF GYPSUM VALLEY MINING DISTRICT SHOWING PATENTED MINING CLAIMS, GEOLOGY, AND LOCATION OF TOPAZ GROUP OF CLAIMS, URADO URANIUM INC., SAN MIGUEL COUNTY, COLORADO

RECEIVED
JUN 1 4 1956

Surname 700

Ching
Ellis
Hedges
Kilsgaard
Selfridge
Johnson

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

Mr. Louis P. Gaggini
Vice President
Urado Uranium, Inc.
304 Main Street
Grand Junction, Colorado

APR 22 1955

Re: Docket No. DMEA-3719 (Uranium)
Topaz Group
San Miguel County, Colorado

Dear Mr. Gaggini:

The application for assistance in exploring the subject property in San Miguel County, Colorado, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to the Executive Officer of Region III at the following address:

Mr. W. H. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

C. O. Mittendorf

Administrator

MChing:am
4-21-55
cc to: Admr. Reading File
Docket
Code 700
Mr. Ching
DMEA Field Team, Region III(2)

R.C.h.

Surname 700

Ching
Ellis
Selfridge
Lehmann

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

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

APR 22 1955

Re: Docket No. DMEA-3719 (Uranium)
Urade Uranium, Inc.
Topaz Group
San Miguel County, Colorado

Dear Mr. Traver:

The subject application is being referred to you for investigation, a field examination if warranted, and recommendation. A copy of the application was retained in your office.

Enclosed are two copies each of comments and recommendations by R. D. Trace and John E. Crawford, of the Uranium Commodity Committee, dated March 18 and March 24, 1955, respectively.

In the event a contract is recommended by the Field Team, it will be necessary to obtain an Owner's Consent to Lien covering all eight claims. In addition, an assignment of the lease on the Topaz Nos. 1 and 13 claims, from Louis P. Gaggini to Urade Uranium, Inc., will be required.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GHB)

Enclosures

MChing:am
4-21-55
cc to: Admr. reading file
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching

APPROVED:

J. H. Hedges (GHB)
Member, Bureau of Mines

Thor H. Kiilsgaard (GHB)
Member, Geological Survey

R.L.S.

3/25/55 gla

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

March 24, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket 3719, Urado Uranium, Inc., Topaz claims, Big Gypsum Valley, San Miguel County, Colorado

I have reviewed the attached application of Urado Uranium Incorporated, DMEA Docket 3719. Joseph O. Hosted, Washington representative of the Atomic Energy Commission also reviewed the application, and we have discussed it together.

The application indicates that some exploratory drilling has been done on the Topaz 1 claim and an open cut made on the south end of the same claim, but the results of this work were indecisive. The applicant justifies exploration assistance owing to the fact that the Topaz group of claims lie in the heart of the Uravan mineral belt, and because of uranium mineralization found by others in the immediate area.

We suggest that the Urado Uranium Company be requested to supply some positive information which would warrant the DMEA providing exploration assistance. The geologic and geographic proximity of known uranium occurrences in the Uravan mineral belt does not seem sufficient justification for DMEA participation.

John E. Crawford
John E. Crawford

Attachment

Copy to: Division of Minerals
Branch of Rare & Precious Metals
J. O. Hosted (2)
J. E. Crawford (2)

3/22/5-5-gla

IN REPLY REFER TO:

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

March 18, 1955

Re: DMEA-3719
Urado Uranium, Inc.
Topaz claims
Big Gypsum Valley
San Miguel Co., Colo.
$117,976 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: R. D. Trace, U. S. Geological Survey

Subject: Review of application

This application covers an area just to the north of DMEA-3576, which was referred to the Field Team in December 1954.

The Topaz group of claims, including DMEA 3576 and 3719, lie in a half circle around three USV patented claims, the Eclipse, Uncle Sam, and Indian Henry. It appears that an evaluation of the Topaz group depends upon projection from the three USV claims, as the ore-bearing rim seems to be nowhere exposed on the Topaz group.

I have no written reports here on the USV claims but I understand that the Survey Grand Junction office (W. L. Emerick) has examined the claims and also has the results of the USV drilling. According to my informant (C. F. Withington), production from the three claims has been negligible. Also, the USV drilling found only 1 small ore body (1500 tons ± on the Eclipse). Any Survey drilling, as mentioned by the applicant, is too far away to be of significance.

In view of the above data, I doubt that either DMEA 3719 or 3576 have sufficient merit to warrant a project.

However, as mineralization is present in the area and my information about the area is second hand and oral, I recommend that the application be referred to the Field Team. An examination by the Survey may not be necessary.

Bob Trace
R. D. Trace

IN REPLY REFER TO:

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

March 18, 1955

Re: DMEA-3719
Uranio Uranium, Inc.
Topaz claims
Big Gypsum Valley
San Miguel Co., Colo.
$117,976 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: R. D. Trace, U. S. Geological Survey

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However, as mineralization is present in the area and my information about the area is second hand and oral, I recommend that the application be referred to the Field Team. An examination by the Survey may not be necessary.

RDTrace:hlm
G-3/18/55

R. D. Trace

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior

March 15, 1955
Subject: DMEA 3719
Re: Exploration Assistance
Topaz Group

Urado Uranium, Inc.
304 Main Street
Grand Junction
Colorado

Gentlemen:

The receipt of your application dated February 28, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3719 and referred to the Rare and Miscellaneous Metals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

March 15, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region III.

DMEA - 3719 Urado Uranium, Inc.

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

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

MAR 14 1955

224 New Customhouse
Denver 2, Colorado

March 9, 1955

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA assistance (Uranium), Urado Uranium Company, Inc., Topaz group of claims, Lower San Miguel Mining District, San Miguel County, Colorado

Enclosed are the original and two copies of the subject application for exploration work at an estimated cost of $117,976.00.

One copy of the application has been retained in this office.

W. M. Traver

Enclosures

W. M. Traver

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

MAR 14 1955

224 New Customhouse
Denver 2, Colorado

March 9, 1955

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA assistance (Uranium), Urado Uranium Company, Inc., Topaz group of claims, Lower San Miguel Mining District, San Miguel County, Colorado

Enclosed are the original and two copies of the subject application for exploration work at an estimated cost of $117,976.00.

One copy of the application has been retained in this office.

W. M. TRAVER,

Enclosures

W. M. Traver

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

MAR 14 1955

Not to be filled in by applicant

Docket No. 3719
Metal or Mineral Uranium
Date Received 3-14-55
Estimated Cost $117,976
Participation (Government %)

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: URADO URANIUM, INC. ~~c/o Lyon Engineering~~
304 Main Street
Grand Junction, Colorado

(*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. Colorado Corporation

(*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. Topaz Group (8 Claims) in Big Gypsum Valley, Lower San Miguel Mining District, San Miguel County, Colorado in Sections 9, 10, 15, 16, Township 44 Norht, Range 18 West, New Mexico Principal Meridan.

(*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 Lessee (See Exhibit 2)

(*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. (See Exhibit 2)

(*e*) If you own the land, describe any liens or encumbrances on it No liens except that which will quired under this loan. Form MF-203 Consent to Lien will be furnished when re-

(*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 proj*—(*a*) State the mineral or minerals for which you wish to explore Uranium

(*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 30 days and be completed within 12 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?

X ☐ 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 February 28, 195

URADO URANIUM, INC.
(Applicant)

By Louis P. Guggini
Vice President

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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MAR 14 1955

DMEA
Date Rec'd.
MAR 1 1955
BUREAU OF MINES
Denver, Colorado

APPLICATION FOR DMEA PROJECT

ON THE

TOPAZ GROUP

February 28, 1955

Prepared for

URADO URANIUM, INC.

304 MAIN STREET

GRAND JUNCTION, COLORADO

by
GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE TOPAZ GROUP, PREPARED FOR URADO URANIUM, INC., 304 MAIN STREET, GRAND JUNCTION

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GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE TOPAZ GROUP, PREPARED FOR URADO URANIUM, INC., 304 MAIN STREET, GRAND JUNCTION

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Completed DMEA Form MF-103	1
Mining Lease to URADO URANIUM, INC.	2
Certified Copies of Original Topaz Location Notices	3 thru 10
Certified Copies of Public Law 585 Amended Notices	11 thru 18
Log of Drill Hole T1-1	19
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GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE TOPAZ GROUP
Prepared for
URADO URANIUM, INC.
304 Main Street
Grand Junction, Colorado

INTRODUCTION

This report is prepared for URADO URANIUM, Inc., by Geo-Engineering for the purpose of applying for a DMEA loan on the Topaz Group of claims. DMEA Form MF-103 has been signed and is attached (see Exhibit 1). Numbers and letters preceding the headings contained in this report refer to part of the said form.

ABSTRACT

With Form MF-103 attached as Exhibit 1, this report is an application for a Defense Mineral Exploration Administration project contract of the short form or unit cost type. A $117,976.00 project is recommended for exploring the uranium potential on the Topaz Group of claims located in Big Gypsum Valley in Northwestern San Miguel County, Colorado (see Figure 1). A calculated total of 21,985 feet of core drilling is proposed on this property at an estimated cost of $5.27 per foot. Custom assaying is not included in the unit cost, however, $2100 is included in the proposed total expenditure for this purpose. Twenty-five per-cent of the total expenditure or $29,494.00 will be paid by URADO URANIUM, Inc., the applicant, while the Defense Minerals Exploration Administration is asked to loan $88,482.00.

The location of 22 holes to be drilled in Stage I drilling are shown on Figure 4. As the work progresses, it may become evident that some of the proposed holes have been located in areas geologically unfavorable for ore. For this particular reason, URADO URANIUM, Inc., would appreciate the privilege of deciding whether or not a previously proposed hole should be drilled. It is requested that footage saved in this manner be transferred with the permission of the DMEA Field Team to other sectors of the Topaz Group that might possibly give more satisfactory results.

The Topaz Group lies along the southern rim and slopes of Big Gypsum Valley in the heart of "The Uravan Mineral Belt" as defined by the United States Geological Survey in their Bulletin 988-A (see Figure 1).

Skilled labor, materials and equipment are available in the Naturita-Uravan district. Personnel of Geo-Engineering will act as consulting geologists on the project.

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE TOPAZ GROUP, PREPARED FOR URADO URANIUM, INC., 304 MAIN STREET, GRAND JUNCTION

1. NAME OF APPLICANT

a. URADO URANIUM, Inc., 304 Main Street, Grand Junction, Colorado.

b. URADO URANIUM, Inc., is a Colorado Corporation with its offices at 304 Main Street, Grand Junction, Colorado.

c. The officers are:

President and Director
M. E. Newlove
Aspen, Colorado

Vice-President and Director
Louis P. Gaggini
Norwood, Colorado

Secretary-Treasurer and Director
Albert Merle Echternach
Palisade, Colorado

Directors
Roy Stone
Olathe, Colorado

Harold A. Culp
1200 Texas Avenue
Grand Junction, Colorado

Lewis D. Anderson
312 Hill Avenue
Grand Junction, Colorado

d. Omitted - Not a partnership.

2. GENERAL

The following report, which is the completed DMEA application written in accordance with the instructions given in the DMEA Order No. 1, includes the completed Form MF-103 and all the necessary substantiating papers.

The letters and numbers used in the headings herein refer to those used on Form MF-103. This report is designed to fill in the information that, due to space limitations, could not be placed on the MF-103 form.

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE TOPAZ GROUP, PREPARED FOR URADO URANIUM, INC., 304 MAIN STREET, GRAND JUNCTION

In accordance with instructions given on Form MF-103, this report will be filed in quadruplicate at the office of Mr. W. M. Traver, Executive Officer, DMEA Field Team, Region IV, 224 New Custom House, Denver 2, Colorado.

3. APPLICANT'S PROPERTY RIGHTS

a. & b. Legal Description and Name of Property

Exploration work is to be performed on eight unpatented mining claims referred to in this report as the Topaz Group. The claims are located in Township 44 North, Range 18 West, New Mexico Principal Meridian, in the Lower San Miguel Mining District of San Miguel County, Colorado. The claims lie in Sections 9, 10, 15 and 16 (see Figure 3).

c. Interest

URADO URANIUM, Inc., leased this property from Simpson Mining Co., Arthur Hamilton, Otis Phillips, Jr., John W. Harris, W. D. McDavid, Rex Phillips and Graham B. Ladd, shown as Exhibit 2.

d. Outstanding Liens

The only obligations against the property are those provisions set forth in the mining lease, shown as Exhibit 2. A Consent to Lien, Form MF-203, will be furnished when needed.

e. & f. Record of Title

All transactions affecting title to the claims are recorded in the office of the County Clerk and Recorder of San Miguel County at Telluride, Colorado. The claims were recorded as follows:

Claim Name	Original Recording Date	Book	Page	Circ. 7 Recording Date	Book	Page	Public Law 585	Book	Page
Topaz 1	17 Apr 53	216	421	17 Feb 54	229	5	27 Aug 54	240	499
Topaz 10	17 Apr 53	216	425	17 Feb 54	229	14	27 Aug 54	240	508
Topaz 11	17 Apr 53	216	426	17 Feb 54	229	15	27 Aug 54	240	509
Topaz 13	17 Apr 53	216	426	17 Feb 54	229	16	26 Aug 54	240	510
Topaz 22	30 Apr 53	216	430	17 Feb 54	229	24	26 Aug 54	240	518
Topaz 23	30 Apr 53	216	431	17 Feb 54	229	25	26 Aug 54	240	519
Topaz 24	30 Apr 53	216	431	17 Feb 54	229	26	26 Aug 54	240	520
Topaz 25	30 Apr 53	216	431	17 Feb 54	229	27	26 Aug 54	240	521

Notice of withdrawal of Circular 7, Lease Application, on all of these claims were filed on 28 September 1954 in Book 241, Page 317.

The original certificates are shown as Exhibits 3 thru 10; Public Law 585 Amended Certificates are shown as Exhibits 11 thru 18.

4. PHYSICAL DESCRIPTION OF PROPERTY

a. Operations

There has been no mining on these claims. Some exploratory drilling has been done on Topaz 1 claim (see Exhibits 19 and 20). An open cut has been made on the south end of Topaz 1 but was not deep enough to expose the ore zone.

There is an access road crossing part of the Topaz Group.

b. Productions and Ore Reserves

The Topaz Group has had no past production and there are no proven ore reserves.

c. Geological Features

Stratigraphy: The proposed drill holes (see Figure 4 and Schedule 3) will be collared in the Brushy Basin or Salt Wash members of the Jurrassic Morrison formation except for small localized area that is covered by landslide deposits. All holes will be drilled to the red clay that underlies the lowest sandstone lense in the ore horizon as determined from data accumulated in the nearby Bull Canyon District and checked with information from Uranium Ventures, Inc., and United States Vanadium Corporation on nearby claims.

The ore horizon in the Topaz area lies between two stratigraphic planes that are about 120 feet apart. The lower plane lies about 180 feet above the base of the Salt Wash member. The upper plane lies about 150 feet below the top of the Salt Wash member (see Figure 5). The sandstone lenses at this stratigraphic interval have been the host rocks for most of the area's uranium production.

Information on the thickness of the beds was obtained from geologic maps of the area, and from the nearby Bull Canyon quadrangle which has been mapped by the U.S.G.S.

Formations older than the Morrison are not differentiated or discussed in this report as they have no bearing on the exploration project.

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE TOPAZ GROUP, PREPARED FOR URADO URANIUM, INC., 304 MAIN STREET, GRAND JUNCTION

Structure: The Topaz Group is located along the southwest rim of the Big Gypsum Valley Graben. The area, embracing the claims, is extremely faulted with the formations varying in dip from as much as 13° northeasterly to 12° southwesterly. The general strike of the faults is north 60° west.

A small syncline, with axis following the strike of the faults, passes through the center of the Group. To the northwest, an anticline with the same general trend crosses the end boundaries of several claims.

Surface exposure reveals only the two members of the Morrison formation and the landslide areas.

Ore Deposits: There are no known ore deposits on the Topaz Group, however, within a one-half mile radius of this property, considerable work has been done in twelve small adits for prospecting purposes. Small quantities of high grade ore was shipped from these workings in the early radium boom.

Justification of Exploration: The Topaz Group lies in the heart of the "Uravan Mineral Belt" (see Figure 1). This belt has been defined by the United States Geological Survey in Bulletin 988-A as "a narrow, elongate area in southwestern Colorado in which carnotite deposits in the Morrison formation have a closer spacing, larger size and higher grade than those in adjoining areas. The belt extends from Gateway through Uravan to Slick Rock."

The United States Vanadium Company has three patented claims, Uncle Sam, Eclipse and Indian Henry, in this area bordering the Topaz Group to the north and east (see Sigure 4). Some ore has been produced from the Uncle Sam and Donald Hill claims but exact figures as to tonnage and grade are not available. Recent drilling on these two claims has resulted in some new discoveries.

To the southwest in the Slick Rock district, the Veta Mad, Veta Glad, Ellison and Herbert claims are producing large tonnages of high grade ore.

South of the Topaz Group, the U.S.G.S. has discovered sizable ore bodies during recent exploratory drilling.

d. Accessibility

The Topaz Group lies along the southern rim and slope of Big Gypsum Valley. The claims can be reached over 12 miles of graveled road that connects with Colorado State Highway 80. The distance to the Vanadium Corporation of America mill at Naturita, Colorado, is approximately 40 miles and it is about 55 miles to the United States Vanadium Company mill at Uravan, Colorado. It is approximately 155 miles to the Durango mill of the Vanadium Corporation of America and 75 miles to the A.E.C. mill at Monticello, Utah.

Supplies and all necessary equipment can be obtained either at Naturita or Uravan, Colorado. Permanent settlements with motor freight depots are located at both places. Railroad and airline facilities are available at Grand Junction, Colorado at a distance of 175 miles by road and 70 miles by air.

e. Availability of Manpower, Equipment, Supplies, etc.

Manpower, skilled in performing the type of drilling planned, is readily available in the area as are dependable outlets for materials and supplies.

The equipment to be used on this project will be furnished by private contractors.

Geo-Engineering, a professional engineering firm, will supply surveying instruments and transportation for technical personnel. This firm maintains offices at Norwood, Colorado, 50 miles from the Topaz Group, and at Grand Junction, Colorado, 175 miles from the property.

Drilling water will be hauled from the Dolores River about 4 miles away.

5. THE EXPLORATION PROJECT

a. Mineral

Uranium

b. Proposed Work

Drills for the project will be provided by private drilling companies under contract.

It is estimated that it will require 12 months to complete the project with 1 drill. The employment of more than 1 drill would result in inadequate geologic control, wasted footage, and an increase in exploration costs per ton of ore discovered.

Proposed holes are shown on Figure 4. Estimated hole depths are listed in Schedule 1, and 22 core drill holes are listed in Schedule 2 for Stage 1 drilling. 33 core drill holes are listed for Stage II. Intelligent selection of locations for all of these holes is impossible at this time. It is recommended, therefore, that a DMEA contract be allowed for a 55 core drill hole project, and that the selection of locations for the Stage II holes be made with the approval of the Defense Minerals Exploration Administration Field Team after the data from some of the preliminary

drilling has been compiled. It is presumed that most of this Stage II drilling will be around Stage I holes that have penetrated ore. It is a certainty that all Stage II locations will be in areas where Stage I drilling has revealed favorable geology.

Logging and Sampling: A sampler who will also act as a field assistant for surveying will be employed to supervise the logging and sampling. An accurate log will be kept by the driller, and all barren core will be arranged on the ground and properly marked so that the geologist or sampler can carefully check the driller's log. Core from each run will be carefully dropped out of the core barrel into a wooden trough provided for that purpose by the drilling contractor. The sampler or other competent individual will then examine the core, using a field gamma ray detecting device. If any trace of mineralization is found, the complete core "run" will be arranged in a core box provide with a hinged lid, and will be kept until such time as the geologist will have been able to properly sample the core.

Each sample will be carefully described by the geologist in a bound field book as it is placed in the sample sack. Core losses will be prorated proportionately regardless of lithology. All samples will be sent to commercial assayers for percentage determination of U_3O_8, V_2O_5 and $CaCO_3$.

Geologic Control of Drilling: Urado Uranium, Inc., asks the privilege of not drilling any of the proposed holes shown on Figure 4, if, in the opinion of the company's geologist, they fall in an area which, based on previous drilling information, is considered unfavorable. Footage thus saved would be used in more favorable areas, at locations approved by the DMEA Field Team. The criteria used to determine unfavorable areas will, in general, be the same as those used by the United States Geologic Survey and the United States Atomic Energy Commission in their drilling programs. These are discussed in a report by Doris Blackman Wier (Wier, Doris Blackman, 1952, Geologic Guides to Prospecting for Carnotite Deposits on the Colorado Plateau, U.S. Geological Survey Bulletin 988-B) and the reader is referred to this writing for the information lacking in this brief discussion.

The presence of gray-green mudstone at the base of a potential ore-bearing sandstone has been an excellent guide to ore. When Stage I holes penetrate 1 foot or more of the gray-green mudstone at the base of a potentially ore-bearing sandstone which is over 30 feet, Urado Uranium, Inc., might recommend Stage II drilling around such holes to the DMEA Field Team.

Drilling Plan: The drilling plan recommended to the Defense Minerals Exploration Administration and to Urado Uranium, Inc., is as follows:

1. The 22 proposed core drill holes as shown on Figure 4 are arranged in a pattern to cut the predominating trend or orientation of ore bodies in the district (see Figure 2). Generally, holes are placed on a 300 foot by 1000 foot grid oriented

so that the 300 foot dimension is normal to the trend and staggered so that a hole in one row is between two 300 foot spaced holes in the next row. This, in effect, will cut the trend on 150 foot centers.

2. Each row of proposed core drill hole sites are placed as nearly on the level as possible on steep terrain. This will allow more level drill sites and will allow Stage II drilling on the roads between favorable holes.

3. Stage II drilling should be performed only in those areas judged to be favorable. The proposed Stage I drilling is sufficient to produce the negative information necessary to delineate unfavorable areas.

c. Time of Exploration Project Contract

The work will begin within 30 days and be completed within 12 months from the date of an exploration project contract.

d. Ability of Applicant

The officers and directors of URADO URANIUM, INC., have had many years of experience in metal and uranium mining. Most of the field and supervisory work will be done by the consulting firm of Geo-Engineering.

Mr. M. E. Newlove, President of URADO URANIUM, INC., a mining engineer and graduate of Stanford University, has had more than 25 years of mining experience. He was for many years associated with Newmont Mining Corp. For 5 years he was Superintendent of Newmont's North Star Mine in California, and for 8 years he was General Manager of their Resurrection Mining Company in Leadville, Colorado. Subsequently he was Managing-Director of American Smelting and Refining Company's mining operations in West Africa.

Mr. Albert Merle Echternach, Secretary-Treasurer of URADO URANIUM, INC., is well known in the Grand Junction, Colorado, district through his association with the United Fruit Growers Association. He was graduated from Southwestern College, Winfield, Kansas, in 1906. Between 1906 and 1921, Mr. Echternach worked in the accounting field, including four years as Assistant Cashier of the Palisade, Colorado, bank. From 1923 to 1944, he was Executive Secretary-Treasurer of the United Fruit Growers Association. He was also Manager for the Association for the period from 1935 to 1944. He served as a director of the Association from 1945 to 1948. Since that time, he had developed a very productive peach orchard.

Geo-Engineering, a firm of professional engineers and geologists, with offices conveniently located at Norwood, Colorado, 50 miles from the property, and at Grand Junction, 175 miles from the property, will act as consultants to URADO URANIUM, INC.,

for this project. A brief description of the experience background of the three general partners of Geo-Engineering is given below.

Louis P. Gaggini, Vice-President of URADO URANIUM, INC., and chief geologist for Geo-Engineering, began working in uranium in 1941, as geologist for the Union Mine Development Corporation, a contractor for the United States Army Manhattan Engineering Project. Subsequent experience in carnotite exploration included almost two years with the Exploration Branch of the Atomic Energy Commission in Grand Junction and six months with the United States Vanadium Company. Mr. Gaggini was for two years mining superintendent of the Dulaney Mining Company, where he was in charge of all mining and exploration. This company is at present mining large tonnages from ore bodies which were discovered during that period. From August, 1952, to February, 1954, Mr. Gaggini was manager of the Colorado Uranium Division of the J. R. Simplot Company. During this period Mr. Gaggini successfully prepared applications for and administered for several months two large DMEA projects.

Harold A. Culp, a Director of URADO URANIUM, INC., is a geologist and geophysicist and a copartner in Geo-Engineering with Mr. Gaggini and Mr. Lewis D. Anderson. Since graduating with a degree in economic geology from Oregon State College, Mr. Culp has, in addition to uranium, worked with gold, oil, copper, cobalt and tungsten; this included 6 years' experience in metal mining and 5 years of geophysical prospecting in oil and mining. In addition to mine management for others, he has operated a mine in which he shared a 1/3 investment interest. His work has included the preparation of Defense Minerals Exploration Administration projects and, after approval of loan application by that agency, supervision of the project. During 1953-54, Mr. Culp was project geologist and then acting superintendent of the Bull Canyon mines of the J. R. Simplot Company.

Lewis D. Anderson, a Director of URADO URANIUM, INC., mining engineer, is a graduate from the Colorado School of Mines (registered mining engineer No. 1844 in Colorado). From December, 1946, through 1948, Mr. Anderson worked as engineer and shift boss for the Resurrection Mining Company at Leadville, Colorado. From January, 1949, through April, 1950, he worked as mining engineer in the General Chemical Division of Allied Chemical and Dye. He was mine foreman of the Rico-Argentine Mining Company, Rico, Colorado, from June, 1950, to October, 1951. Mr. Anderson then accepted employment as division engineer for the Dulaney Mining Company in the Gateway, Dove Creek, Monticello, and Gyp Valley areas. From June, 1952, to 1954, Mr. Anderson's duties as mining engineer covered both the mining and milling of uranium-vanadium ores and included jurisdiction over the United States Vanadium Company's uranium operations in the Edgemont, South Dakota, area.

Mr. Roy Stone, a Director of URADO URANIUM, INC., has had a long and varied career in mining on the Colorado Plateau. He freighted radium ore in 1914 from the Mexico group of claims in the Hamm Canyon area. From 1917 to 1921, he packed and

freighted radium ore for the Vanadium Corporation of America. He operated a livestock ranch in Telluride, Colorado, area between 1921 and 1948. From 1948 to 1955, Mr. Stone has been very active in uranium mining. As principal owner and operator, Mr. Stone produced more than $330,000 worth of uranium ore from the Corvusite Mine on Beaver Mesa, Utah, west of Gateway, Colorado. During part of the same period, he operated the Pond and Shubert properties on Beaver Mesa.

6. ESTIMATE OF COSTS

It is the desire of URADO URANIUM, INC., that this exploration project contract be placed on a unit cost basis. Schedule 5 gives the exact amount bid per unit by URADO URANIUM, INC., for performing the exploration work. Custom Assaying is not included in the cost per foot for drilling because of the difficulty of making an accurate estimate. The $6.00 per sample figure bid for custom assaying is the exact amount charged by the A. E. C. approved assayers.

a. Independent Contracts

All drilling and bulldozer work will be performed by independent contractors.

Drilling: The drilling will be done by private contractors. The prices quoted by firms active in the uranium field are used in Schedule 2 and in the unit cost columns. Estimate for the cost of the holes proposed for Stage II drilling is based on one and half holes for each Stage I hole and were pro-rated on the same basis as the estimated Stage I drilling. The drilling cost for Stage I is $22,047.50 and Stage II is $33,131.25. An estimated cost of $9,900.00 is made for reaming of holes. An allowance of $2640.00 is made for casing that might be left in the drill holes.

Bulldozer and Tractors: These are readily available in the district for about $100.00 per day. Because many hole locations will be selected from the results of previous drilling, it is estimated that it will be necessary to have a bulldozer hauled to the Group at least 5 different times at a cost of $100.00 for each round trip. It is estimated that the tractor will work at least 10 days during each visit to the Topaz Group. It is also estimated that a certain amount of rock blasting will have to be done in the preparation of roads and drill sites. An estimated allowance of $600.00 is made for this work.

b. Labor, Supervision, Consultant

Geo-Engineering will supervise, direct, and act as technical consultants for $1,000.00 per month and reasonable expenses (see Schedule 4). A draftsman and stenographer will be employed on a part time basis to prepare necessary project reports (see Schedule 4). The field assistant will be employed by Geo-Engineering or URADO URANIUM, INC., at a minimum of $15.00 per day, to help with surveying and to act as a sampler.

c. Operating Materials & Supplies

$150.00 per month is estimated for the cost of map reproduction and office supplies.

$200.00 is estimated for the cost of field supplies (see Schedule 4).

d. Operating Equipment

All operating equipment will be provided by independent contractors or by Geo-Engineering.

e. Rehabilitation & Repairs

None needed.

f. New Buildings, Improvements & Installations

It will be necessary for the project personnel to live on the property as it is some distance from a town. Provisions are here made for the rental of one house trailer that will be moved to the Topaz property (see Schedule 4).

g. Miscellaneous

$100.00 per month is allowed to cover office and miscellaneous supervision to be performed by the personnel of URADO URANIUM, INC.

Payroll taxes on the field assistant, draftsman and typist are estimated at 10%. The cost of analytical work is not covered in the cost per foot. A separate unit cost of $6.00 per sample is added in Schedule 5.

h. Contingencies

Independent contractors vary the charge for drilling with the depth of the hole (see Schedules 2 & 3). A glance at Schedules 2 and 3 will show that it is possible that some of the Stage II drilling may exceed estimation. 15% is added to cover this possible increase.

Estimates to cover payments to contractors for trail building and drill site preparation may be inadequate. It is possible that some of the trails crossing sandstone ledges might require more rock drilling and blasting than is estimated. This contingency is, also, covered in the above 15%.

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Grand Junction, Colorado

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URADO URANIUM, INC., 304 MAIN STREET, GRAND JUNCTION

Labor, supervision and consultants payments are on a monthly or hourly basis. Any event which might prolong the project will increase the cost of this item. 10% is added to cover these possible increases.

Operating material and supplies are estimated at a minimum. The destruction of a few core boxes or some other unforeseen consumption of materials and supplies might easily increase the cost of this item 20%.

New buildings, improvements, etc: In the event of any prolonging of the project, some personnel would have to remain on the property. 20% is added for this contingency.

Miscellaneous costs are estimated at $158.00 per month. 50% is added to provide for any extra help and for unforseen taxes.

7. APPLICANT'S SHARE OF COST

a. & b.

In accordance with the Defense Minerals Exploration Administration regulations, URADO URANIUM, INC., is prepared to assume 25% of the cost of this project in the following manner, to wit:

The company will perform all of the necessary work and pay for all of the labor, materials and supplies. Reimbursement by the DMEA will be in accordance with Schedule 5 less 25% (i.e., the amount to be loaned by the Government for each unit of work performed will be 25% less than the amounts shown in Schedule 5).

Respectfully submitted,

GEO-ENGINEERING

Louis P. Gaggini
LOUIS P. GAGGINI

Lewis D. Anderson
LEWIS D. ANDERSON

Harold A. Culp
HAROLD A. CULP

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE TOPAZ GROUP, PREPARED FOR URADO URANIUM, INC., 304 MAIN STREET, GRAND JUNCTION

SCHEDULE 1

CORE DRILL HOLE DEPTHS

Hole No.	Claim Name	Estimated Collar Elev.	Estimated Bottom Elev.	Estimated Depth
1	Topaz 11	6130	5800	330
2	Topaz 11	6225	5900	325
3	Topaz 11	6190	5800	390
4	Topaz 11	6240	5700	540
5	Topaz 10	6210	5700	510
6	Topaz 23	6260	5700	560
7	Topaz 23	6340	5680	660
8	Topaz 23	6320	5660	660
9	Topaz 23	6270	5630	640
10	Topaz 24	6230	5690	540
11	Topaz 24	6300	5660	640
12	Topaz 24	6340	5650	690
13	Topaz 24	6280	5620	660
14	Topaz 25	6230	5610	620
15	Topaz 13	5640	5600	40
16	Topaz 13	5660	5630	30
17	Topaz 13	5700	5660	40
18	Topaz 13	5720	5600	120
19	Topaz 13	5740	5620	120
20	Topaz 13	5720	5650	70
21	Topaz 1	6060	5700	360
22	Topaz 1	6020	5780	240
			TOTAL FOOTAGE	8,785

CORE DRILL HOLE DEPTHS

SCHEDULE 1

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE TOPAZ GROUP, PREPARED FOR URADO URANIUM, INC., 304 MAIN STREET, GRAND JUNCTION

SCHEDULE 2

DRILLING SUMMARY

Hole No.	Est. Depth	Est. Non-Coring	Est. 0'-200'	Est. 200'-300'	Est. 300'-400'	Est. 400'-500'	Est. 500'-600'	Est. 600'-700'
1	330	130	70	100	30			
2	325	125	75	100	25			
3	390	190	10	100	90			
4	540	340			60	100	40	
5	510	310			90	100	10	
6	560	360			40	100	60	
7	660	460				40	100	60
8	660	460				40	100	60
9	640	440				60	100	40
10	540	340			60	100	40	
11	640	440				60	100	40
12	690	490				10	100	90
13	660	460				40	100	60
14	620	420				80	100	20
15	40		40					
16	30		30					
17	40		40					
18	120		120					
19	120		120					
20	70		70					
21	360	160	40	100	60			
22	240	40	160	40				
TOTALS	8,785	5,165	775	440	455	730	850	370
Price per foot		2.00	2.25	2.50	2.75	3.25	4.00	5.00
Costs		10,330.00	1743.75	1100.00	1251.25	2372.50	3400.00	1850.00

TOTAL COST, STAGE I - - - - $22,047.50

DRILLING SUMMARY

SCHEDULE 2

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE TOPAZ GROUP, PREPARED FOR URADO URANIUM, INC., 304 MAIN STREET, GRAND JUNCTION

SCHEDULE 3

ESTIMATE OF AMOUNTS TO BE PAID TO INDEPENDENT CONTRACTORS

Explanation	Unit	No. of Units	Cost per Unit	Total cost each Item	Grand Total
Drilling Contractor					
Stage I Drilling (see Schedule 2)	Feet	8,785	$ 2.51		$ 22,047.50
Stage II Drilling					
33 Holes at 400 feet Average Depth					
Non-coring	Feet	7,760	2.00	$ 15520.00	
Coring - 0'-200'	Feet	1,160	2.25	2610.00	
200'-300'	Feet	660	2.50	1650.00	
300'-400'	Feet	690	2.75	1897.50	
400'-500'	Feet	1,095	3.25	3558.75	
500'-600'	Feet	1,280	4.00	5120.00	
600'-700'	Feet	555	5.00	2775.00	
Total Stage II Drilling		13,200	$ 2.51		$ 33,131.25
Reaming (50% of Stage II footage)	Feet	6,600	1.50		9,900.00
Casing (20% of reaming footage)	Feet	1,320	2.00		2,640.00
Road & Drill Site Building					
Moving Dozer to & from Property	Round Trip	5	100.00		500.00
Dozer Rental	Day	50	100.00		5,000.00
Compressor & Blasting	Day	12	50.00		600.00
TOTAL ESTIMATED AMOUNTS TO BE PAID TO INDEPENDENT CONTRACTORS	Feet	21,985	$ 3.36		$ 73,818.75

ESTIMATE OF AMOUNTS TO BE PAID TO INDEPENDENT CONTRACTORS

SCHEDULE 3

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE TOPAZ GROUP, PREPARED FOR URADO URANIUM, INC., 304 MAIN STREET, GRAND JUNCTION

SCHEDULE 4

ESTIMATED COSTS UNDER 6b, 6c, 6f & 6g, MF-103

Explanation - Heading and Letter	Cost per Hour	Cost per Day	Cost per Month	Cost per Project	Unit Cost per MF-103 Heading
6 (b) Labor, Supervision and Consultants					
Geo-Engineering Fees			$1000.00	$12,000.00	
Geo-Engineering Expenses		$10.00	250.00	3,000.00	
Draftsman 50 hrs/month	$3.00		150.00	1,800.00	
Typist 50 hrs/month	2.25		112.50	1,350.00	
Sampler & Field Assistant		15.00	375.00	4,500.00	
Total under 6 (b) of MF-103 (21,985')				$22,650.00	$1.03
6 (c) Operating Materials & Supplies					
Office supplies, map & drill log reproductions for Monthly reports & other correspondence with DMEA			150.00	1,800.00	
Survey stakes & other field supplies				200.00	
Total under 6 (c) of MF-103 (21,985')				$ 2,000.00	$0.09
6 (f) New Building, Installations, etc.					
1 trailer house for project personnel (Rental)			50.00	600.00	
Total under 6 (f) of MF-103 (21,985')				$ 600.00	$0.027
6 (g) Miscellaneous					
Accounting expense, etc.			100.00	1,200.00	
Payroll taxes estimated at 10% of $637.50			63.75	765.00	
Total under 6 (g) of MF-103 (21,985')				$ 1,965.00	$0.09

ESTIMATED COSTS UNDER 6b, 6c, 6f & 6g, MF-103

SCHEDULE 4

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE TOPAZ GROUP, PREPARED FOR URADO URANIUM, INC., 304 MAIN STREET, GRAND JUNCTION

SCHEDULE 5

SUMMARY OF COSTS

	Units	No. of Units	Cost per Unit	Total Cost per Item	Grand Total
6a-Independent Contractors (Sch. 3)	Feet	21,985	$3.36	$73,818.75	
6b-Labor, Supervision & Consultants (Schedule 4)	Feet	21,985	1.03	22,650.00	
6c-Operating Materials & Supplies (Schedule 4)	Feet	21,985	0.09	2,000.00	
6d-Operating Equipment	None				
6e-Rehabilitation & repair	None				
6f-New Building, Installations (Schedule 4)	Feet	21,985	0.027	600.00	
6g-Miscellaneous (Schedule 4)	Feet	21,985	0.09	1,965.00	
6h-Contingencies					
For (a) above - 15%				11,073.00	
For (b) above - 10%				2,265.00	
For (c) above - 20%				400.00	
For (f) above - 20%				120.00	
For (g) above - 50%				984.00	
Calculated Unit Cost	Feet	21,985	$5.27		$115,875.75
Calculated Cost of Project using Unit Cost Bid and before allowance for Analytical Work	Feet	21,985	$5.27		115,876.00
Analytical Work					
U_3O_8 Analysis	Sample	350	$3.50	1,225.00	
V_2O_5 Analysis	Sample	350	1.50	525.00	
$CaCO_3$ Analysis	Sample	350	1.00	350.00	2,100.00
					$117,976.00
Total Cost of Project during DMEA Participation- -					$117,976.00
Less 25% to be paid by URADO URANIUM, INC.- - - - - - - - - - - - - - - - - - - -					29,494.00
AMOUNT OF DMEA LOAN REQUESTED -					$ 88,482.00

SUMMARY OF COSTS

SCHEDULE 5

MINING LEASE

THIS AGREEMENT, Made and entered into in duplicate as of March 16, 1954, between ALAN M. SIMPSON and JULIAN E. SIMPSON, mining partners doing business as Simpson Mining Company, of Grand Junction, Colorado; ARTHUR HAMILTON and OTIS PHILLIPS, JR., both of Dallas, Texas; JOHN W. HARRIS, W. D. McDAVID, REX PHILLIPS and GRAHAM S. LADD, all of San Antonio, Texas, parties of the first part hereinafter called Lessors and LOUIS P. GAGGINI, of Norwood, Colorado, party of the second part, hereinafter called Lessee, WITNESSETH:

That lessors, in consideration of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed and by lessee to be kept and performed, hereby grant, demise and lease to lessee the following-described lode mining claims in Lower San Miguel Mining District, County of San Miguel and State of Colorado, the location certificates thereof being duly of record in the office of said county as follows:

Minerals Administration
RECEIVED
MAR 14 1955

NAME OF CLAIM	BOOK	PAGE
Topaz No.1	216	421
Topaz No. 13	216	426

TO HAVE AND TO HOLD Unto Lessee for a term of five years from the date hereof, with a right to renew said lease at its expiration for an additional term of five years, unless sooner forfeited through the violations of any covenant herein required to be performed by lessee, with a right to surrender this lease as hereinafter set forth.

In consideration of such lease, LESSEE COVENANTS AND AGREES With Lessors as follows, to-wit;

1. To enter upon and commence actual operations on said mining claims on or before May 1, 1954, and perform exploration and development work by expending a minimum of $500.00 each three months and, if commercial ores are discovered, to mine and ship ores of a minimum value of $500.00 each three months period; it being understood and agreed that if lessee is unable to mine ores of $500.00 in value during each three months, but shall mine some ores, he shall expend in exploration and development to make up the difference between the value of such ores and said minimum of $500.00. The first three month period shall commence on May 1. 1954.

2. To cause to be paid to lessors a royalty of 15% of the proceeds of ores mined and sold from any of said claims, including 15% of any bonus payment paid by the Atomic Energy Commission, less however development and haulage allowances. All such ores shall be shipped in the joint names of lessors and lessee and payment of such royalties shall be made as follows: 3.75% to Simpson Mining Company, 304 Main St., Grand Junction, Colorado, and 11.25% to W. D. McDavid, Trustee, 918 Milam Building, San Antonio, Texas, and Lessee shall be under no liability for the allocation thereof among said lessors.

3. To keep full and accurate records of all operations carried on hereunder, including drilling records, maps and assays, open to inspection of lessors, or their agent, at all reasonable times, and to permit lessors, or their agent, full and free access to said claims for the purposes of inspection and otherwise. To furnish lessors with true copies of all drilling records, maps, assays and other relevant information with respect to lessee's mining operations.

To make lessors, or their agent, a written report, within 30 days after the end of each quarterly period, showing gross value of ores shipped and cost of development work performed during such period.

4. To carry on all mining operations in strict conformity with all laws and regulations pertaining to such operations, to carry Workman's Compensation Insurance, and to pay all State and Federal taxes and exactions under operations hereunder, including any production taxes, and to save and keep harmless lessors from any and all liability of every kind and character arising out of their mining operations hereunder.

Exhibit No. 2

5. To post notices at or near workings upon said mining claims reciting in substances that all mining operations are being carried on and conducted by lessee, and that lessors will not be liable for any claim or acts of any kind of character rising out of lessee's work hereunder.

6. Lessors heretofore located the two mining claims known as Topaz No. 1 and Topaz No. 13. Subsequently, it was found said claims are located within the area covered by oil and gas lease 054367. Lessors have posted and recorded notices of lease application upon said claims as provided by Circular 7 of the Atomic Energy Commission. They agree that they will apply for a mining lease thereon pursuant to the provisions of said circular, and, in the event of its issuance to them, they will sub-lease the same to Lessee subject to the terms thereof, and subject to the payment of a royalty of 15% of the proceeds of ores mined and sold therefrom as provided by the provisions of paragraph 2.

MUTUAL COVENANTS

IT IS MUTUALLY AGREED That lessee shall have the right to surrender this lease at any time upon giving lessors at least 30 days written notice of such intention to surrender, sent by registered mail to Simpson Mining Company, Grand Junction, Colorado, and upon such surrender or cancellation as hereinafter provided, lessee shall have the right within a reasonable time, to remove all of his machinery, equipment and personal property from said claims, and, upon surrender or cancellation lessee shall leave all excavations made by him in such condition that the removal of waste material should not be required in order to continue mining at such point or points.

Lessee shall have no right to assign or sublet this lease, or any part of said mining claim, without the written consent of lessors first had and obtained.

IT IS FURTHER AGREED That lessee shall have an option to renew this lease for an additional term of five years from its expiration upon the same terms and conditions as are set forth herein, provided lessee has faithfully kept and performed each of the covenants and conditions herein provided to be kept and performed by it.

IT IS FINALLY AGREED That upon violation by lessee of any of the covenants in the foregoing lease, the term of this lease shall, at the option of lessors, expire, and the same and said mining claims shall become forfeited to lessors, and lessors, or their agent, may thereupon enter upon said mining claims and dispossess all persons occuping the same, or, at the option of lessors, lessee and all persons found in occupation thereof, may be proceeded against as guilty of unlawful detainer, PROVIDED, HOWEVER, That if said lease is forfeited upon the election of lessors by reason of the failure of lessee to perform the covenants thereof, lessors shall give lessee at least 20 days notice in writing, by registered mail sent to lessee at Norwood, Colorado. Notifying it of such failure to perform and setting out in said notice the substantial facts as to any such default or breach, and, upon failure or refusal by lessee to cure and correct such default within 20 days from the receipt of such notice, lessee shall surrender and deliver up the possession of all of said mining claims, and their rights under this lease shall thereupon cease and determine.

All of the provisions herein contained shall inure to and be binding upon the heirs and personal representatives of lessors, and lessee and their lawful assigns.

WITNESS Their names.

(signed) Julian E. Simpson By a partner of the Simpson Mining Co.	(signed) W. D. McDavid Lessor
(signed) Arthur Hamilton Lessor	(signed) Rex Phillips Lessor
(signed) Otis Phillips, Jr. Lessor	(signed) Graham B. Ladd Lessor
(signed) John W. Harris Lessor	(signed) Louis P. Gaggini Lessee

CERTIFIED A TRUE COPY: C. W. SNOAD

Exhibit No. 42

MINING LEASE

THIS AGREEMENT, Made and entered into in duplicate as of November 9, 1954 between ALAN M. SIMPSON and JULIAN E. SIMPSON, mining partners doing business as SIMPSON MINING COMPANY of Grand Junction, Colorado; ARTHUR HAMILTON and OTIS PHILLIPS, JR., both of Dallas, Texas; JOHN W. HARRIS, W. D. McDAVID, REX PHILLIPS and GRAHAM B. LADD, all of San Antonio, Texas, parties of the first part hereinafter called Lessors and URADO URANIUM, INC., a Colorado Corporation whose address is 304 Main Street, Grand Junction, Colorado, party of the second part, hereinafter called Lessee, WITNESSETH:

That Lessors in consideration of the sum of Six Hundred Dollars ($600.00), receipt of which is hereby acknowledged, and the delivery of 60,000 shares of capital stock as hereinafter set forth, and of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed and by Lessee to be kept and performed, hereby grant, demise and lease to Lessee the following described lode mining claims in Lower San Miguel Mining District, County of San Miguel and State of Colorado, the location certificates and amended location certificates thereof being duly of record in the office of said county as follows:

NAME OF CLAIM	LOCATION CERTIFICATE		AMENDED LOCATION CERTIFICATE	
	BOOK	PAGE	BOOK	PAGE
Topaz No. 10	216	425	240	508
Topaz No. 11	216	426	240	509
Topaz No. 22	216	430	240	518
Topaz No. 23	216	431	240	519
Topaz No. 24	216	431	240	520
Topaz No. 25	216	432	240	521

EXCLUDING Therefrom all conflicts with Topaz No. 1 lode mining claim recorded in Book 216 at Page 421.

TO HAVE AND TO HOLD Unto Lessee for a term of five(5) years from the date hereof, and thereafter so long as merchantable ores are mined and sold from any of said mining claims, unless sooner forfeited through the violations of any covenant herein required to be performed by Lessee, with a right to surrender this lease as hereinafter set forth.

In consideration of such lease, LESSEE COVENANTS AND AGREES with Lessors as follows, to wit:

1. To deliver to Lessors Sixty Thousand (60,000) Shares, par value of one cent($0.01) per share, of the capital stock of Urado Uranium, Inc., within seven (7) days after the Securities and Exchange Commission has approved the sale of capital stock in said corporation, such certificates to be issued in the following names and amounts:

Simpson Mining Company	15,000 Shares
Arthur Hamilton	5,400 Shares
Otis Phillips, Jr.	5,400 Shares
John W. Harris	5,400 Shares
W. D. McDavid	18,000 Shares
Rex Phillips	5,400 Shares
Graham B. Ladd	5,400 Shares

2. To make application to U. S. Government for a Defense Minerals Exploration Administration Loan on said mining claims, on or before February 15, 1955. To furnish Lessors with a true copy of said application on or before date of submission.

3. To enter upon said mining claims and to do and perform exploration and development work by expending not less than Six Thousand Dollars

Exhibit No. 2

($6000.00) on or before the 14th day of May, 1955, and to thereafter perform exploration and development work by expending a minimum of Three Thousand Dollars ($3000.00) each three months (3) and, if commercial ores are discovered, to mine and ship ores of a minimum value of Three Thousand Dollars ($3000.00) each three (3) months period; it being understood and agreed that if Lessee is unable to mine ores of Three Thousand Dollars ($3000.00) in value during each three (3) months, but shall mine some ores, it shall expend in exploration and development to make up the difference between the value of such ores and said minimum of Three Thousand Dollars ($3000.00). The first three (3) month period shall commence on May 15, 1955.

4. To cause to be paid to Lessors a royalty of fifteen (15%) percent of the proceeds of ores mined and sold from any of said claims, including fifteen (15%) percent of any bonus payment paid by the Atomic Energy Commission, less, however, development and haulage allowances. All such ores shall be shipped in the joint names of Lessors and Lessee and payment of such royalties shall be made as follows: 3.75% to Simpson Mining Company, 304 Main Street, Grand Junction, Colorado and 11.25% to W. D. McDavid, Trustee, 918 Milam Building, San Antonio, Texas, and Lessee shall be under no liability for the allocation thereof among said Lessors.

5. To keep full and accurate records of all operations carried on hereunder, including drilling records, maps and assays, open to inspection of Lessors, or their agent, at all reasonable times, and to permit Lessors, or their agent, full and free access to said claims for the purpose of inspection and otherwise. To furnish Lessors with true copies of all drilling records, maps, assays, and other relevant information with respect to Lessee's mining operations.

To make Lessors, or their agent, a written report, within thirty (30) days after the end of each three month period, showing gross value of ores shipped and cost of development work performed during such period.

6. To carry on all mining operations in strict conformity with all laws and regulations pertaining to such operations, to carry Workman's Copensation Insurance, and to pay all State and Federal taxes and exactions under operations hereunder, including any production taxes, and to save and keep harmless Lessors from any and all liability of every kind and character arising out of their mining operations hereunder.

7. To post notices at or near workings upon said mining claims reciting in substance that all mining operations are being carried on and conducted by Lessee, and that Lessors will not be liable for any claim or acts of any kind or character arising our of Lessee's work hereunder.

MUTUAL COVENANTS

1. IT IS MUTUALLY AGREED That Lessee shall have the right to surrender this lease at any time upon giving Lessors at least thirty (30) days written notice of such intention to surrender sent by registered mail to Simpson Mining Company, Grand Junction, Colorado, and upon such surrender or cancellation as hereinafter provided, Lessee shall have the right, within a reasonable time, to remove all of its machinery, equipment and personal property from said claims, and upon surrender or cancellation Lessee shall leave all excavations made by him in such condition that the removal of waste material should not be required to continue mining at such point or points.

Lessee shall hve no right to assign or sublet this lease, or any part of said mining claims, without the written consent of Lessors first had and obtained.

2. IT IS FURTHER AGREED That Lessors will execute the "Owners Consent to Lien" in order that Lessee may obtain a Defense Minerals Exploration Administration loan, however, it being understood and agreed that any royalty payment to the United States shall, in no event, reduce the royalty payment heretofore specified to be paid by Lessee.

3. IT IS FINALLY AGREED That upon violation by Lessee of any of the covenants in the foregoing lease, the term of this lease shall, at the option of the Lessors, expire, and the same and said mining claims

Exhibit No. 42

shall become forfeited to Lessors, and Lessors, or their agent, may thereupon enter upon said mining claims and dispossess all persons occupying the same, or, at the option of Lessors, Lessee and all persons found in occupation thereof may be proceeded against as guilty of unlawful detainer, PROVIDED, HOWEVER, that if said lease is forfeited upon the election of Lessors by reason of the failure of Lessee to perform the covenants thereof, Lessors shall give Lessee at least twenty (20) days notice in writing, by registered mail sent to Lessee at Grand Junction, Colorado notifying it of such failure to perform and setting out in said notice the substantial facts as to any such default or breach, and upon failure or refusal by Lessee to cure and correct such default within twenty (20) days from the receipt of such notice, Lessee shall surrender and deliver up the possession of all of said mining claims, and its rights under this lease shall thereupon cease and determine.

All of the provisions herein contained shall inure to and be binding upon the heirs and personal representatives of Lessors and Lessee and their lawful assigns.

WITNESS Their names.

Certified a true copy. C. W. SHOAD

(signed) Julian E. Simpson
By a partner of the Simpson Mining Company

(signed) Arthur Hamilton

(signed) Otis Phillips, Jr.

(signed) John W. Harris

(signed) W. D. McDavid

(signed) Rex Phillips

(signed) Graham B. Ladd
Lessors

(SEAL)

URADO URANIUM, INC.

BY (signed) Louis P. Gaggini
President
Thereunto duly authorized
Lessee

ATTEST:
BY (signed) Lewis D. Anderson
Secretary

Exhibit No. 42

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Carriere County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #1

No. 105472 as it appears of record in my office in Book 216 at page 421

Witness my hand and official seal at Telluride, Colo., this 19 day of Feb 1955

Issued to Geo Engineering

No. 1534 Fee 500

Charles C. Carriere
County Clerk and Recorder, San Miguel County, Colorado.

By _____ Deputy.

13 Out West Prtg. & Stnty. Co., Colo. Spgs M4172

NO. 105472

LOCATION CERTIFICATE

On the Topaz No. 1 Lode Mining Claim, in Lower San Miguel Mining District.

Simpson Mining Co.
Locator

STATE OF COLORADO)
County of San Miguel) ss.

I hereby certify that this Location Certificate was filed for record in my office at 4:01 o'clock P. M., April 17, 1953, and is duly recorded in Book 216 Page 421.

Charles C. Carriere
Recorder

By Vivian Peterson
Deputy

KNOW ALL MEN BY THESE PRESENTS, That We the undersigned have located the Topaz No. 1 lode mining claim, and by this certificate, and by right of discovery and location, claim 1500 feet, linear and horizontal measurement along the vein thereof, with all its dips, angles and variations as allowed by law 20 feet on said vein running N 48°26' W from the center of the discovery cut and 1480 feet running S48°26' E from the center of the discovery cut, together with 300 feet on each side of the middle of said vein at the surface, and all veins, lodes, ledges, deposits and surface ground within the lines of said claim, situate in Lower San Miguel Mining District, County of San Miguel, and State of Colorado and described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1 which is identical with corner No. 2 of Eclipse (Mineral Survey No. #20582); thence N 16°13' W 637 feet to corner No. 2 which is identical with corner No. 3 of Indian Henry (Mineral Survey No. 20581); thence N 48°26' W 1500 feet to corner No. 3 which is identical with corner No. 4 of Indian Henry; thence S 16°13' E 637 feet to corner No. 4 which is identical with corner No. 1 of Eclipse; thence S 48°26' E 1500 feet to corner No. 1, the place of beginning.

Said lode was discovered on the 19th day of January, A. D. 1953 and located on the 19th day of January, A. D. 1953.

Dated this 14th day of March, A. D. 1953.

Simpson Mining Co.	25%	
W. D. McDavid	30%	(SEAL)
Arthur Hamilton	9%	
Otis Phillips, Jr.	9%	(SEAL)
John W. Harris	9%	
Rex Phillips	9%	(SEAL)
Kathleen P. Ladd, or Graham B. Ladd	9%	(SEAL)
J. E. Simpson		(SEAL)
SIMPSON MINING CO.		(SEAL)

Exhibit 3

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 1 4 1955

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Carriere County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #10

No. 105481 as it appears of record in my office in Book 216 at page 425

Witness my hand and official seal at Telluride, Colo., this 10 day of Feb 1955

Issued to Geo Engineering

No. 1535 Fee 10¢

Charles C. Carriere
County Clerk and Recorder, San Miguel County, Colorado.

By _____ Deputy.

13 Out West Prtg. & Stnty. Co., Colo. Spgs M4172

NO. 105481

LOCATION CERTIFICATE

On the Topaz No. 10 Lode Mining Claim, in Lower San Miguel Mining District.

Simpson Mining Co.
Locator

STATE OF COLORADO)
County of San Miguel) ss.

I hereby certify that this Location Certificate was filed for record in my office at 4:10 o'clock P. M., April 17, 1953, and is duly recorded in Book 216, Page 425.

Charles C. Carriere
Recorder
By Vivian Peterson
Deputy

KNOW ALL MEN BY THESE PRESENTS, That We the undersigned have located the Topaz No. 10 lode mining claim, and by this certificate, and by right of discovery and location, claim 1500 feet, linear and horizontal measurement along the vein thereof with all its dips, angles and variations as allowed by law 600 feet on said vein running N 41° 34' E from the center of the discovery cut and 900 feet running S 41° 34' W from the center of the discovery cut, together with 300 feet on each side of the middle of said vein at the surface, and all veins, lodes, ledges, deposits and surface ground within the lines of said claim, situate in Lower San Miguel Mining District, County of San Miguel, and State of Colorado and described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1, whence corner No. 4 of Eclipse (Mineral Survey No. 20582), bears N 41° 34' E, 600 feet; thence N 48° 26' W 540 feet to corner No. 2; thence N 41° 34' E 1500 feet to corner No. 3; thence S 48° 26' E 540 feet to corner No. 4; thence S 41° 34' W 1500 feet to corner No. 1 the place of beginning.

Corner No. 1 of Topaz No. 10 is identical with corner No. 3 of Topaz No. 9.

Said lode was discovered on the 19th day of January, A. D. 1953 and located on the 19th day of January, A. D. 1953.

Dated this 23rd day of March, A. D. 1953.

Simpson Mining Co.	25%	
W. D. McDavid	30%	(SEAL)
Arthur Hamilton	9%	
Otis Phillips, Jr.	9%	(SEAL)
John W. Harris	9%	
Rex Phillips	9%	(SEAL)
Kathleen P. Ladd, or Graham B. Ladd	9%	(SEAL)
J. E. Simpson		(SEAL)
SIMPSON MINING CO.		(SEAL)

Exhibit 4

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
MAR 14 1983

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Carriere County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #11

No. 105482 as it appears of record in my office in Book 216 at page 426

Witness my hand and official seal at Telluride, Colo., this 1 day of Feb 1955

Issued to Geo Engineering

Charles C. Carriere
County Clerk and Recorder, San Miguel County, Colorado.

No. 1536 Fee 1.00

By _____ Deputy.

13 Out West Prtg. & Stnty. Co., Colo. Spgs M4172

NO. 105482

LOCATION CERTIFICATE

On the Topaz No. 11 Lode Mining Claim, in Lower San Miguel Mining District.

Simpson Mining Co.
Locator

STATE OF COLORADO)
County of San Miguel) ss.

I hereby certify that this Location Certificate was filed for record in my office at 4:11 o'clock P. M., April 17, 1953, and is duly recorded in Book 216 Page 426.

Charles C. Carriere
Recorder
By Vivian Peterson
Deputy

KNOW ALL MEN BY THESE PRESENTS, That We the undersigned have located the Topaz No. 11 lode mining claim, and by this certificate, and by right of discovery and location, claim 1500 feet, linear and horizontal measurement along the vein thereof, with all its dips, angles and variations as allowed by law 600 feet on said vein running N 41° 34' E from the center of the discovery cut and 900 feet running S 41° 34' W from the center of the discovery cut, together with 300 feet on each side of the middle of said vein at the surface, and all veins, lodes, ledges, deposits and surface ground within the lines of said claim, situate in Lower San Miguel Mining District, County of San Miguel, and State of Colorado and described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1, whence corner No. 1 of Eclipse (Mineral Survey No. 20582), bears S 33° 43' E, 1173 feet; thence S 43° 26' E 600 feet to corner No. 2; thence S 41° 34' W 1500 feet to corner No. 3; thence N 43° 26' W 600 feet to corner No. 4, thence N 41° 34' E 1500 feet to corner No. 1, Corner No. 1 of Topaz No. 11 is identical with corner No. 1 of Topaz No. 15.

Said lode was discovered on the 19th day of January A. D. 1953 and located on the 19th day of January, A. D. 1953.

Dated this 23rd day of March, A. D. 1953.

Simpson Mining Co.	25%	
W. D. McDavid	30%	(SEAL)
Arthur Hamilton	9%	
Otis Phillips, Jr.	9%	(SEAL)
John W. Harris	9%	
Rex Phillips	9%	(SEAL)
Kathleen P. Ladd, or Graham B. Ladd	9%	(SEAL)
J. E. Simpson		(SEAL)
SIMPSON MINING CO.		(SEAL)

the place of beginning.

Exhibit 5

DEPARTMENT OF THE INTERIOR
Bureau Mineral Administration
RECEIVED
MAR 1 4 1955

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL }

I, Charles C. Carriere County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #13

No. 105483 as it appears of record in my office in Book 216 at page 426

Witness my hand and official seal at Telluride, Colo., this 10 day of Feb 1955

Issued to Geo Engineering

Charles C. Carriere
County Clerk and Recorder, San Miguel County, Colorado.

No. 1537 Fee 1.00

By _____ Deputy.

18 Out West Prtg. & Stnty. Co., Colo. Spgs M4172

NO. 105483

LOCATION CERTIFICATE

On the Topaz No. 13 Lode Mining Claim, in Lower San Miguel Mining District.

Simpson Mining Co.
Locator

STATE OF COLORADO)
County of San Miguel) ss.

I hereby certify that this Location Certificate was filed for record in my office at 4:12 o'clock P. M., April 17, 1953, and is duly recorded in Book 216 Page 426.

Charles C. Carriere
Recorder

By Vivian Peterson
Deputy

KNOW ALL MEN BY THESE PRESENTS, That We the undersigned have located the Topaz No. 13 lode mining claim, and by this certificate, and by right of discovery and location, claim 1500 feet, linear and horizontal measurement along the veing thereof, with all its dips, angles and variations as allowed by law 50 feet on said vein running N 48°-26' W. from the center of the discovery cut and 1450feet running S48° 26' E from the center of the discovery cut, together with 300 feet on each side of the middle of said vein at the surface, and all veins, lodes, ledges, deposits and surface ground within the lines of saidclaim, situate in Lower San Miguel Mining District, County of San Miguel, and State of Colorado and described by metes and bounds as follows, to-wit:

Beginning at Corner N. 1, which is identical with corner No. 1 of Uncle Sam Lode (Mineral Survey No. 20581); thence N 48° 26' W 1500 feet to corner No. 2; thence N 41° 34' E 600 feet to corner No. 3; thence S 48° 26' E 1500 feet to corner No. 4; thence S 41° 34' W 600 feet to corner No. 1, the place of beginning.

Corner No. 2 of Topaz No. 13 is identical with corner No. 1 of the Indian Henry (Mineral Survey No. 20581).

Said lode was discovered on the 19th day of January, A. D. 1953 and located on the 19th day of January, A. D. 1953.

Dated this 27th day of March, A. D. 1953.

Simpson Mining Co.	25%	
W. D. McDavid	30%	(SEAL)
Arthur Hamilton	9%	
Otis Phillips, Jr.	9%	(SEAL)
John W. Harris	9%	
Rex Phillips	9%	(SEAL)
Kathleen P. Ladd, or Graham B. Ladd	9%	(SEAL)
J. E. Simpson		(SEAL)
SIMPSON MINING CO.		(SEAL)

Exhibit 6

MAR 1 4 1995
UNIVERSITY
Department of the Interior
Bureau Mines Administration
Washington

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL }

I, Charles C. Carriere County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #22

No. 105690 as it appears of record in my office in Book 216 at page 430

Witness my hand and official seal at Telluride, Colo., this 10 day of Feb 1955

Issued to Tro Engineering

Charles C. Carriere
County Clerk and Recorder, San Miguel County, Colorado.

No. 1538 Fee $1.00

By _____ Deputy.

18 Out West Prtg. & Stat. Co., Colo. Spgs M4172

NO. 105690

LOCATION CERTIFICATE

On the Topaz No. 22 Lode Mining Claim, in Lower San Miguel Mining District.

Simpson Mining Co.
Locator

STATE OF Colorado)
County of San Miguel) ss.

I hereby certify that this Location Certificate was filed for record in my office at 10:40 o'clock A. M., April 30 1953, and is duly recorded in Book 216 Page 430.

Charles C. Carriere
Recorder.

KNOW ALL MEN BY THESE PRESENTS, That We the undersigned have located the Topaz No. 22 lode mining claim, and by this certificate, and by right of discovery and location, claim 1500 feet, linear and horizontal measurement along the vein thereof, with all its dips, angles and variations as allowed by law 448 feet on said vein running N 41° 34' E from thecenter of discovery cut and 1052 feet running S 41° 34' W from the center of the discovery cut, together with 300 feet on each side of the middle of said vein at the surface, and all veins, lodes, ledges, deposits and surface ground within the lines of said claim, situate in Lower San Miguel Mining District, County of San Miguel, and State of Colorado and described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1, whence corner No. 1 of Eclipse Lode (Mineral Survey No. 20582), bears N64° 27' E, 2931 feet; thence S48° 26' E 600 feet to corner No. 2; thence N41° 34' E 1500 feet to corner No. 3; thence N48° 26' W 600 feet to corner No. 4; thence S 41° 34' W 1500 feet to corner No. 1, the place of beginning.

Corner No. 1 of Topaz No. 22 is identical with corner No. 1 of Topaz No. 21

Said lode was discovered on the 12th day of February, A. D. 1953 and located on the 12th day of February, A. D. 1953.

Dated this 27th day of March, A. D. 1953.

Simpson Mining Co.	25%	
W. D. McDavid	30%	(SEAL)
Arthur Hamilton	9%	
Otis Phillips, Jr.	9%	(SEAL)
John W. Harris	9%	
Rex Phillips	9%	(SEAL)
Kathleen P. Ladd, or Graham B. Ladd	9%	(SEAL)
J. E. Simpson		(SEAL)
SIMPSON MINING CO.		(SEAL)

Exhibit 7

PROPERTY OF THE MISSOURI
Courts Administrator
RECEIVED
MAR 1 4 1995

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Carriere County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #23

No. 105691 as it appears of record in my office in Book 216 at page 431

Witness my hand and official seal at Telluride, Colo., this 10 day of Feb 1955

Issued to Geo Engineering

No. 1539 Fee 1.00

Charles C. Carriere
County Clerk and Recorder, San Miguel County, Colorado.

By _____ Deputy.

18 Out West Prtg. & Stnty. Co., Colo. Spgs M4172

NO. 105691

LOCATION CERTIFICATE

On the Topaz No. 23 Lode Mining Claim, in Lower San Miguel Mining District.

Simpson Mining Co.
Locator

STATE OF Colorado)
County of San Miguel) ss.

I hereby certify that this Location Certificate was filed for record in my office at 10:41 o'clock A. M., April 30 1953, and is duly recorded in Book 216 Page 431.

Charles C. Carriere
Recorder.

KNOW ALL MEN BY THESE PRESENTS, That We the undersigned have located the Topaz No. 23 lode mining claim, and by this certificate, and by right of discovery and location, claim 1500 feet, linear and horizontal measurement along the vein thereof, with all its dips, angles and variations as allowed by law 511 feet on said vein running N 41° 34' E from the center of the discovery cut and 989 feet running S 41° 34' W from the center of the discovery cut, together with 300 feet on each side of the middle of said vein at the surface, and all veins, lodes, ledges, deposits and surface ground within the lines of said claim, situate in Lower San Miguel Mining District, County of San Miguel, and State of Colorado and described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1, whence corner No. 4 of Eclipse Lode (Mineral Survey No. 20582), bears N41° 34' E, 600 feet; thence N48° 26' W 540 feet to corner No. 2; thence S41° 34' W 1500 feet to corner No. 3; thence S48° 26' E 540 feet to corner No. 4; thence N41° 34' E 1500 feet to corner No. 1, the place of beginning.

Corner No. 1 of Topaz No. 23 is identical with corner No. 1 of Topaz No. 24 and 10 and Corner No. 3 of Topaz No. 9.

Said lode was discovered on the 12th day of February, A. D. 1953 and located on the 12th day of February, A. D. 1953.

Dated this 27th day of March, A. D. 1953.

Simpson Mining Co.	25%	
W. D. McDavid	30%	(SEAL)
Arthur Hamilton	9%	
Otis Phillips, Jr.	9%	(SEAL)
John W. Harris	9%	
Rex Phillips	9%	(SEAL)
Kathleen P. Ladd, or Graham B. Ladd	9%	(SEAL)
J. E. Simpson		(SEAL)
SIMPSON MINING CO.		(SEAL)

Exhibit 8

DEPARTMENT OF THE INTERIOR
Minerals Administration
RECEIVED
MAR 14 1955

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Carriere County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #24

No. 105692 as it appears of record in my office in Book 216 at page 431

Witness my hand and official seal at Telluride, Colo., this 19 day of Feb 1955

Issued to Geo Engineering

No. 1540 Fee 1.00

Charles C. Carriere
County Clerk and Recorder, San Miguel County, Colorado.

By _____ Deputy.

18 Out West Prtg. & Stnty. Co., Colo. Spgs M4172

NO. 105692

LOCATION CERTIFICATE

On the Topaz No. 24 Lode Mining Claim, in Lower San Miguel Mining District.

Simpson Mining Co.
Locator

STATE OF Colorado)
County of San Miguel) ss.

I hereby certify that this Location Certificate was filed for record in my office at 10:42 o'clock A. M., April 30 1953, and is duly recorded in Book 216 Page 431.

Charles C. Carriere
Recorder.

KNOW ALL MEN BY THESE PRESENTS, That We the undersigned have located the Topaz No. 24 lode mining claim, and by this certificate, and by right of discovery and location, claim 1500 feet, linear and horizontal measurement along the vein thereof, with all its dips, angles and variations as allowed by law 342 feet on said vein running N41° 34' E from the center of the discovery cut and 1158 feet running S 41° 34' W from the center of the discovery cut, together with 300 feet on each side of the middle of said vein at the surface, and all veins, lodes, ledges, deposits and surface ground within the lines of said claim, situate in Lower San Miguel Mining District, County of San Miguel, and State of Colorado and described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1, whence corner No. 4 of Eclipse Lode (Mineral Survey No. 20582), bears N41° 34' E, 600 feet; thence S48° 26' E 600 feet to corner No. 2; thence S41° 34' W 1500 feet to corner No. 3; thence N48° 26' W 600 feet to corner No. 4; thence N41° 34' E 1500 feet to corner No. 1, the place of beginning.

Corner No. 1 of Topaz No. 24 is identical with corner No. 1 of Topaz No. 10 & 23 and corner No. 3 of Topaz No. 9.

Said lode was discovered on the 11th day of February, A. D. 1953 and located on the 11th day of February, A. D. 1953.

Dated this 27th day of March, A. D. 1953.

Simpson Mining Co.....25%
W. D. McDavid.....30% (SEAL)
Arthur Hamilton.....9%
Otis Phillips, Jr.....9% (SEAL)
John W. Harris.....9%
Rex Phillips.....9% (SEAL)
Kathleen P. Ladd, or
Graham B. Ladd.....9% (SEAL)
J. E. Simpson (SEAL)
SIMPSON MINING CO. (SEAL)

Exhibit 9

RECEIVED
MAR 14 1995

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Carriere County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #25

No. 105693 as it appears of record in my office in Book 216 at page 432

Witness my hand and official seal at Telluride, Colo., this 10 day of Feb. 1955

Issued to Geo Engineering

Charles C. C. County Clerk and Recorder, San Miguel County, Colorado.

No. 1541 Fee 1.00

By _____ Deputy.

18 Out West Prtg. & Stnty. Co., Colo. Spgs M4172

NO. 105693

LOCATION CERTIFICATE

On the Topaz No. 25 Lode Mining Claim, in Lower San Miguel Mining District.

Simpson Mining Co.
Locator

STATE OF Colorado)
County of San Miguel) ss.

I hereby certify that this Location Certificate was filed for record in my office at 10:43 o'clock A. M., April 30 1953, and is duly recorded in Book 216 Page 432.

Charles C. Carriere
Recorder

KNOW ALL MEN BY THESE PRESENTS, That We the undersigned have located the Topaz No. 25 lode mining claim, and by this certificate, and by right of discovery and location, claim 1500 feet, linear and horizontal measurement along the vein thereof, with all its dips, angles and variations as allowed by law 195 feet on said vein running N41° 34' E from the center of the discovery cut and 1305 feet running S41° 34' W from the center of the discovery cut together with 300 feet on each side of the middle of said vein at the surface, and all veins, lodes, ledges, deposits and surface ground within the lines of said claim, situate in Lower San Miguel Mining District, County of San Miguel, and State of Colorado and described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1, whence corner No. 2 of Eclipse Lode (Mineral Survey No. 20582), bears N55° 35' E1237 feet; thence N48° 26' W 600 feet to corner No. 2; thence S41° 34' W 1500 feet to corner No. 3; thence S48° 26' E 600 feet to corner No. 4; thence N41° 34' E 1500 feet to corner No. 1, the place of beginning.

Corner No. 1 of Topaz No. 25 is identical with corner No. 1 of Topaz No. 26.

Said lode was discovered on the 11th day of February, A. D. 1953 and located on the 11th day of February, A. D. 1953.

Dated this 27th day of March, A. D. 1953.

Simpson Mining Co.....	25%	
W. D. McDavid.....	30%	(SEAL)
Arthur Hamilton.....	9%	
Otis Phillips, Jr.....	9%	(SEAL)
John W. Harris.....	9%	
Rex Phillips,.....	9%	(SEAL)
Kathleen P. Ladd, or Graham B. Ladd.....	9%	(SEAL)
J. E. Simpson		(SEAL)
SIMPSON MINING CO..		(SEAL)

Exhibit 10

DEPARTMENT OF THE INTERIOR
Bureau Minerals Administration
RECEIVED
MAR 1 4 1983

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Cannone County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Jagger #1

No. 118375 as it appears record in my office in Book 240 at page 477

Witness my hand and official seal at Telluride, Colo., this 4th day of Oct 19

Issued to Geo. Eggers

No. 1556 Fee $1.00

Charles C. Cannone
County Clerk and Recorder, San Miguel County, Colorado.

By Deputy.

13 Out West Prtg. & Stnry. Co., Colo. Spgs M4172

Filed for record the day of A. D. 19 o'clock M

No. RECORDER.

STATE OF COLORADO }
County of San Miguel } ss.

Know all Men by these Presents:

That We

the undersigned, have this 13th day of April, 1954, amended, located and claimed, and by these presents do amend, locate and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the Topaz No. 1 lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the North-East side, and 300 feet on the South-West side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 22 feet running S 48-26 E from center of discovery 305 and 1478 feet running N 48-26W from center of discovery cut said discovery cut being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in Lower San Miguel Mining District, County of San Miguel and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1 Which is identical with corner no. 2 of Eclipse (Mineral Survey No. 20582);

thence N 16-13 W 637 feet to corner no. 2 which is identical with corner no. 3 of Indian Henry (Mineral Survey No. 20581);

thence N 48-26 W 1500 feet to corner no. 3 which is identical with corner no. 4 of Indian Henry;

thence S 16-13 E 637 feet to corner no. 4 which is identical with corner no. 1 of Eclipse;

thence S 48-26 E 1500 feet to corner no. 1, the place of beginning.

This being the same lode originally located on the 19th day of January, 1953, and recorded on the 17th day of April, 1953, in Book 216, Page 421, in the office of the Recorder of San Miguel County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record, or validity. This notice is posted and filed pursuant to the provisions of the Act of August 13, 1954--83D Congress, 2D Session, S. 3344--(Amending the Mineral Leasing Laws to Provide for Multiple Mineral Development of the same tracts of the Public Lands), and for the purpose of obtaining the benefits thereof. PUBLIC LAW 585

Said lode was discovered the 19th day of January, A. D. 1953

ATTEST: Alan N. Simpson
Posting Notice of
Date of/Amended/Location,
Aug. 27, A. D. 1954

Date of Amended Certificate,
, A. D. 19

Simpson Mining Co. 25 Seal
W. F. McDavid 30
Arthur Hamilton 9 Seal
Otis Phillips, Jr. 9
John W. Harris 9 Seal
Rex Phillips 9
Graham B. Todd 9 Seal
Simpson Mining Co. Seal
By: J. L. Simpson Seal

828-P. AMENDED LOCATION CERTIFICATE—Out West Printing and Stationery Co., Colorado Springs, Colo.

Exhibit 11

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Canino County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #10

No. 118404 as it appears of record in my office in Book 240 at page 508

Witness my hand and official seal at Telluride, Colo., this 10 day of Feb 1955

Issued to Leo Engineering

No. 1558 Fee 10.00

Charles C. Canino
County Clerk and Recorder, San Miguel County, Colorado.

By _____ Deputy.

18 Out West Prtg. & Stnry. Co., Colo. Spgs M4172

Filed for record the _____ day of _____, A. D. 19__ at _____ o'clock ____ M.

No. _____ RECORDER.

STATE OF COLORADO } ss.
County of San Miguel

Know all Men by these Presents;

That We

the undersigned, have this 19th day of August, 1954, amended, located and claimed, and by these presents do amend, locate and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the Topaz No. 10 lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the North-West side, and 300 feet on the South-East side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 1415 feet running N 41-34 E from center of discovery cut and 85 feet running S 41-34 W from center of discovery cut said discovery cut being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in Lower San Miguel Mining District, County of San Miguel and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1 whence corner no. 4 of Eclipse (Mineral Survey No. 20582), bears N 41-34 E 600 feet.
thence N 48-26 W 540 feet to corner no. 2;
thence N 41-34 E 1500 feet to corner no. 3;
thence S 48-26 E 540 feet to corner no. 4;
thence S 41-34 W 1500 feet to corner no. 1, the place of beginning.

Corner no. 1 of Topaz No. 10 is identical with corner no. 3 of Topaz No. 9.

This being the same lode originally located on the 19th day of January, 1953, and recorded on the 17th day of April, 1953, in Book 216, Page 425, in the office of the Recorder of San Miguel County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record, or validity. This notice is posted and filed pursuant to the provisions of the Act of August 13, 1954--83D Congress, 2D Session, S. 3344--(Amending the Mineral Leasing Laws to Provide for Multiple Mineral Development of the same tracts of the Public Lands), and for the purpose of obtaining the benefits thereof. PUBLIC LAW 585.

Said lode was discovered the 19th day of January, A. D. 1953.

ATTEST: Alan M. Simpson

Date of Posting Notice of Amended Location, Aug. 27, A. D. 1954

Date of Amended Certificate, _____, A. D. 19__

Simpson Mining Company ... 25% Seal
W. D. McDavid ... 30%
Arthur Hamilton ... 9% Seal
Otis Phillips, Jr. ... 9%
John W. Harris ... 9% Seal
Rex Phillips ... 9%
Graham B. Ladd ... 9% Seal

Simpson Mining Company Seal

By: J. E. Simpson Seal

819-P. AMENDED LOCATION CERTIFICATE—Out West Printing and Stationery Co., Colorado Springs, Colo.

Exhibit 12

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Cavaiani County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #11

No. 118405 as it appears of record in my office in Book 240 at page 509

Witness my hand and official seal at Telluride, Colo., this 10 day of Feb 1955

Issued to Geo Engineering

No. 1559 Fee 2.00

Charles C. Cavaiani
County Clerk and Recorder, San Miguel County, Colorado.

By _____ Deputy.

18 Out West Prtg. & Staty. Co., Colo. Spgs M4172

Filed for record the ____ day of ____, A. D. 19____, at ____ o'clock ____ M.

No. ____ RECORDER.

STATE OF COLORADO }
County of San Miguel } ss.

Know all Men by these Presents:

That We

the undersigned, have this 19th day of August, 1954, amended, located and claimed, and by these presents do amend, locate and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the Topaz No. 11 lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the North-West side, and 300 feet on the South-East side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 1450 feet running N 41-34 E from center of discovery cut and 50 feet running S 41-34 W from center of discovery cut said discovery cut being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in Lower San Miguel Mining District, County of San Miguel and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1 whence corner no. 1 of Eclipse (Mineral Survey No. 20588), bears S 33-43 E 1177 feet;
thence S 43-26 E 600 feet to corner no. 2;
thence S 41-34 W 1500 feet to corner no. 3;
thence N 43-26 W 600 feet to corner no. 4;
thence N 41-34 E 1500 feet to corner no. 1, the place of beginning.

Corner no. 1 of Topaz No. 11 is identical with corner no. 1 of Topaz No. 15.

This being the same lode originally located on the 19th day of January, 1953, and recorded on the 17th day of April, 1953, in Book 216, Page 426, in the office of the Recorder of San Miguel County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record, or validity. This notice is posted and filed pursuant to the provisions of the Act of August 13, 1954--83d Congress, 2D Session, S. 3344--(Amending the Mineral Leasing Laws to Provide for Multiple Mineral Development of the same tracts of the Public Lands), and for the purpose of obtaining the benefits thereof. PUBLIC LAW 585.

Said lode was discovered the 19th day of January, A. D. 1953

ATTEST: Alan K. Simpson
Posting Notice of
Date of Amended Location, Aug. 27, A. D. 1954

Date of Amended Certificate, _____, A. D. 19____

Simpson Mining Company..25% Seal
W. D. McDavid.....30%
Arthur Hamilton.....9% Seal
Otis Phillips, Jr.....9%
John W. Harris.....9% Seal
Rex Phillips.....9%
Graham B. Ladd.....9% Seal

Simpson Mining Company Seal

By: J. W. Simpson Seal

828-P. AMENDED LOCATION CERTIFICATE—Out West Printing and Stationery Co., Colorado Springs, Colo.

Exhibit 13

MAR 1 4 1973

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Cannine County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #13

No. 118406 as it appears of record in my office in Book 240 at page 510

Witness my hand and official seal at Telluride, Colo., this 18 day of Feb 1955

Issued to Lis Engineering

Charles C. Cannine
County Clerk and Recorder, San Miguel County, Colorado.

No. 1557 Fee $1.00

By _____ Deputy.

13 Out West Prtg. & Stnry. Co., Colo. Spgs M4172

Filed for record the _____ day of _____, A. D. 19____, at _____ o'clock ____ M.

No. _____ _____ RECORDER.

STATE OF COLORADO
County of San Miguel } ss.

Know all Men by these Presents:

That We _____

the undersigned, ha ve this 19th day of August, 1954, amended, located and claimed, and by these presents do amend, locate and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the Topaz No. 13 lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the North-East side, and 300 feet on the South-West side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 1255 feet running N 48-26 W from center of discovery cut and 245 feet running S 48-26 E from center of discovery cut said discovery cut being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in Lower San Miguel Mining District, County of San Miguel and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1 which is identical with corner no. 1 of Uncle Sam Lode (Mineral Survey No. 20581);
thence N 48-26 W 1500 feet to corner no. 2;
thence N 41-34 E 600 feet to corner no. 3;
thence S 48-26 E 1500 feet to corner no. 4;
thence S 41-34 W 600 feet to corner no. 1,
the place of beginning.

Corner no. 2 of Topaz No. 13 is identical with corner no. 1 of the Indian Henry (Mineral Survey No. 20581)

This being the same lode originally located on the 19th day of January, 1953, and recorded on the 17th day of April, 1953, in Book 216, Page 426, in the office of the Recorder of San Miguel County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record, or validity. This notice is posted and filed pursuant to the provisions of the Act of August 13, 1954--83D Congress, 2D Session, S. 3344--(Amending the Mineral Leasing Laws to Provide for Multiple Mineral Development of the same tracts of the Public Lands), and for the purpose of obtaining the benefits thereof. PUBLIC LAW 585.

Said lode was discovered the 19th day of January, A. D. 1953.

ATTEST: Alan N. Simpson
Posting Notice of
Date of Amended Location, Aug. 26, A. D. 1954.

Date of Amended Certificate, _____, A. D. 19____

Simpson Mining Company ..... 25% Seal
W. D. McDavid 30%
Arthur Hamilton ..... 9% Seal
Otis Phillips, Jr 9%
John W. Harris ..... 9% Seal
Rex Phillips 9%
Graham B. Ladd ..... 9% Seal

Simpson Mining Company Seal

By: J. E. Simpson Seal

828-P. AMENDED LOCATION CERTIFICATE—Out West Printing and Stationery Co., Colorado Springs, Colo.

Exhibit 14

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Cornish County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #22

No. 118414 as it appears of record in my office in Book 240 at page 518

Witness my hand and official seal at Telluride, Colo., this 10 day of Feb 1955

Issued to Leo Engineering

No. 1560 Fee 10

Charles C. Cornish
County Clerk and Recorder, San Miguel County, Colorado.

By _____ Deputy.

13 Out West Prtg. & Stnry. Co., Colo. Spgs M4172

Filed for record the _____ day of _____, A. D. 19____, at _____ o'clock ____ M.

No. _____ RECORDER.

STATE OF COLORADO
County of San Miguel } ss.

Know all Men by these Presents:

That We

the undersigned, have this 19th day of August, 1954, amended, located and claimed, and by these presents do amend, locate and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the Topaz No. 22 lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the North-West side, and 300 feet on the South-East side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 448 feet running N 41-34 E from center of discovery cut and 1052 feet running S 41-34 W from center of discovery cut said discovery cut being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in Lower San Miguel Mining District, County of San Miguel and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1 whence corner No. 1 of Eclipse Lode (Mineral Survey No. 20582), bears N 64-27 E 2931 feet;
thence S 48-26 E 600 feet to corner no. 2;
thence N 41-34 E 1500 feet to corner no. 3;
thence N 48-26 W 600 feet to corner no. 4;
thence S 41-34 W 1500 feet to corner no. 1, the place of beginning.

Corner no. 1 of Topaz No. 22 is identical with corner no. 1 of Topaz No. 21

This being the same lode originally located on the 12th day of February, 1953, and recorded on the 30th day of April, 1953, in Book 216, Page 430, in the office of the Recorder of San Miguel County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record, or validity. This notice is posted and filed pursuant to the provisions of the Act of August 13,1954--83D Congress, 2D Session, S. 3344--(Amending the Mineral Leasing Laws to Provide for Multiple Mineral Development of the same tracts of the Public Lands), and for the purpose of obtaining the benefits thereof. PUBLIC LAW 585.

Said lode was discovered the 12th day of February, A. D. 1953

ATTEST: Alan M. Simpson
Posting Notice of Date of Amended Location, Aug. 26, A. D. 1954

Date of Amended Certificate, _____, A. D. 19____

Simpson Mining Company..25% Seal
W. D. McDavid.....30%
Arthur Hamilton.....9% Seal
Otis Phillips, Jr.....9%
John W. Harris.....9% Seal
Rex Phillips.....9%
Graham B. Ladd.....9% Seal
Simpson Mining Company
Seal
By: J. E. Simpson
Seal

838-P. AMENDED LOCATION CERTIFICATE—Out West Printing and Stationery Co., Colorado Springs, Colo.

Exhibit 15

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Cerniglia County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #23

No. 118415 as it appears of record in my office in Book 346 at page 519

Witness my hand and official seal at Telluride, Colo., this 10 day of Oct 19 53

Issued to Geo Engineering

Charles C. Cerniglia
County Clerk and Recorder, San Miguel County, Colorado.

No. 1561 Fee $1.00

By _____ Deputy.

Out West Prtg. & Stnry. Co., Colo. Spgs. M4172

Filed for record the _____ day of _____, A. D. 19____, at _____ o'clock ____ M.

No. _____ _____ RECORDER.

STATE OF COLORADO } ss.
County of San Miguel

Know all Men by these Presents:

That We

the undersigned, have this 19th day of August, 19 54, amended, located and claimed, and by these presents do amend, locate and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the Topaz No. 23 lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the North-West side, and 300 feet on the South-East side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 511 feet running N 41-34 E from center of discovery cut and 989 feet running S 41-34 W from center of discovery cut said discovery cut being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in Lower San Miguel Mining District, County of San Miguel and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1 whence corner no. 4 of Eclipse Lode (Mineral Survey No. 20582), bears N 41-34 E 600 feet;

Thence N 48-26 W 540 feet to corner no. 2;
thence S 41-34 W 1500 feet to corner no. 3;
thence S 48-26 E 540 feet to corner no. 4;
thence N 41-34 E 1500 feet to corner no. 1, the place of beginning.

Corner no. 1 of Topaz No. 23 is identical with corner no. 1 of Topaz No. 24 and Topaz No. 10, and corner no. 3 of Topaz No. 9.

This being the same lode originally located on the 12th day of February, 1953, and recorded on the 30th day of April, 1953, in Book 216, Page 431, in the office of the Recorder of San Miguel County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record, or validity. This notice is posted and filed pursuant to the provisions of the Act of August 13, 1954--83D Congress, 2D Sassion, S. 3344--(Amending the Mineral Leasing Laws to Provide for Multiple Mineral Development of the same tracts of the Public Lands), and for the purpose of obtaining the benefits thereof. PUBLIC LAW 585

Said lode was discovered the 12th day of February, A. D. 1953

ATTEST: Alan M. Simpson

Posting Notice of Date of Amended Location, Aug. 26, A. D. 19 54

Date of Amended Certificate, _____, A. D. 19____

Simpson Mining Company..25% Seal
W. D. McDavid.....30%
Arthur Hamilton.....9% Seal
Otis Phillips, Jr.....9%
John W. Harris.....9% Seal
Rex Phillips.....9%
Graham B. Ladd.....9% Seal

Simpson Mining Company Seal

By: J. E. Simpson Seal

828-P. AMENDED LOCATION CERTIFICATE—Out West Printing and Stationery Co., Colorado Springs, Colo.

Exhibit 16

JAN 1 4 1966
CONGRESSIONAL SERIAL SET

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Campione County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #24

No. 118416 as it appears of record in my office in Book 240 at page 520

Witness my hand and official seal at Telluride, Colo., this 10 day of Feb. 19 55

Issued to Lio Engineering

No. 1562 Fee 10

County Clerk and Recorder, San Miguel County, Colorado.

By _____ Deputy.

13 Out West Prtg. & Stnry. Co., Colo. Spgs M4172

Filed for record the _____ day of _____, A. D. 19____, at _____ o'clock ____ M.

No. _____ RECORDER.

STATE OF COLORADO }
County of San Miguel } ss.

Know all Men by these Presents:

That We

the undersigned, have this 19th day of August, 19 54, amended, located and claimed, and by these presents do amend, locate and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the Topaz No. 24 lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the NorthWest side, and 300 feet on the South-East side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 342 feet running N 41-34 E from center of discovery cut and 1158 feet running S 41-34 W from center of discovery cut said discovery cut being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in Lower San Miguel Mining District, County of San Miguel and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1 whence corner no. 4 of Eclipse Lode (Mineral Survey N . 20582), bears N 41-34 E 600 feet;
thence S 48-26 E 600 feet to corner no. 2;
thence S 41-34 W 1500 feet to corner no. 3;
thence N 48-26 W 600 feet to corner no. 4;
thence N 41-34 E 1500 feet to corner no. 1, the place of beginning.

Corner no. 1 of Topaz No. 24 is identical with corner no. 1 of Topaz no. 10 and Topaz No. 23, and corner no. 3 of Topaz No. 9.

This being the same lode originally located on the 11th day of February, 1953, and recorded on the 30th day of April, 1953, in Book 216, Page 431, in the office of the Recorder of San Miguel County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record, or validity. This notice is posted and filed pursuant to the provisions of the Act of August 13, 1954--83D Congress, 2D Session, S. 3344--(Amending the Mineral Leasing Laws to Provide for Multiple Mineral Development of the same tracts of the Public Lands), and for the purpose of obtaining the benefits thereof. PUBLIC LAW 585

Said lode was discovered the 11th day of February, A. D. 1953

ATTEST: Alan M. Simpson

Date of Posting Notice of Amended Location, Aug. 26, A. D. 1954

Date of Amended Certificate, _____, A. D. 1954

Simpson Mining Company..25% Seal
W. D. McDavid.....30%
Arthur Hamilton.....9% Seal
Otis Phillips, Jr.....9%
John W. Harris.....9% Seal
Rex Phillips.....9%
Graham B. Ladd.....9% Seal

Simpson Mining Company Seal

By: J. E. Simpson Seal

828-P. AMENDED LOCATION CERTIFICATE—Out West Printing and Stationery Co., Colorado Springs, Colo.

Exhibit 17

MAR 1 4 1966
DEPARTMENT OF THE INTERIOR
CONSERVATION SECTION
LIBRARY

(CERTIFIED COPY)

STATE OF COLORADO } ss.
COUNTY OF SAN MIGUEL

I, Charles C. Cannone County Clerk and Recorder in and for said County and State, do hereby certify that the within and foregoing is a full, true and correct copy of Topaz #25

No. 118417 as it appears on record in my office in Book 240 at page 531

Witness my hand and official seal at Telluride, Colo., this 10 day of Feb 1955

Issued to Leo Engineering

No. 1563 Fee Free

Charles C. Cannone
County Clerk and Recorder, San Miguel County, Colorado.

By ..... Deputy.

13 Out West Prtg. & Stnty. Co., Colo. Spgs M4172

Filed for record the ..... day of ....., A. D. 19....., at ..... o'clock ..... M.

No. ..... RECORDER.

STATE OF COLORADO } ss.
County of San Miguel

Know all Men by these Presents:

That We

the undersigned, have this 19th day of August, 1954, amended, located and claimed, and by these presents do amend, locate and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the Topaz No. 25 lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the North-West side, and 300 feet on the South-East side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 105 feet running N 41-34 E from center of discovery cut and 1305 feet running S 41-34 W from center of discovery cut said discovery cut being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in Lower San Miguel Mining District, County of San Miguel and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1 whence corner no. 2 of Eclipse Lode (Mineral Survey No. 20582), bears N 55-35 E 1237 feet;
thence N 48-26 W 600 feet to corner no. 2;
thence S 41-34 W 1500 feet to corner no. 3;
thence S 48-26 E 600 feet to corner no. 4;
thence N 41-34 E 1500 feet to corner no. 1,
the place of beginning.

Corner no. 1 of Topaz No. 25 is identical with corner no. 1 of Topaz No. 26.

This being the same lode originally located on the 11th day of February, 1953, and recorded on the 30th day of April, 1953, in Book 216, Page 432, in the office of the Recorder of San Miguel County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record., or validity. This notice is posted and filed pursuant to the provisions of the Act of August 13, 1954--83D Congress, 2D Session, S. 3344--(Amending the Mineral Leasing Laws to Provide for Multiple Mineral Development of the same tracts of the Public Lands), and for the purpose of obtaining the benefits thereof. PUBLIC LAW 585.

Said lode was discovered the 11th day of February, A. D. 1953

ATTEST: Alan M. Simpson

Date of Posting Notice of Amended Location, Aug. 26, A. D. 1954

Date of Amended Certificate, ..., A. D. 1954

Simpson Mining Company..25% Seal
W. D. McDavid.....30%
Arthur Hamilton.....9% Seal
Otis Phillips, Jr.....9%
John W. Harris.....9% Seal
Rex Phillips.....9%
Graham B. Ladd.....9% Seal

Simpson Mining Company Seal

By: J. E. Simpson Seal

828-P. AMENDED LOCATION CERTIFICATE—Out West Printing and Stationery Co., Colorado Springs, Colo.

Exhibit 18

DRILL HOLE LOG

GEO ENGINEERING

Type of Drill: Core

Logged For: Urado Uranium

Drill-hole No.: T1-1
Total depth: 80'
Collar elev.: 6100' T. ..... P
Area: Big Gyp Valley

COORDINATES
North ..... East .....
Tie: S 46° E 190'
from NESC Topaz 1

Claim: Topaz 1
Date started: 12/21/54
Date completed: 12/23/54
Logged by: Geo-Engineering

Summary of log ..... ; OBSS ..... Thick ..... ; SS color ..... ; MS under OBSS ..... ; Cbn .....

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0	65					Boulders, Sand & Gravel
65	65.4	SS				
65.4	66	MS	Gn			Soft
66	66.8	MS	Gn			Sandy
66.8	70	MS	R			Sandy
70	74	MS	R			
74	80	SS				
						Hole was not drilled deep enough
						Hole caved at 7 feet
						7.5 feet core - no count
	2'	SS	L Br			
	4'	SS	L Br-Gn			
	1.5'	MS	R			

γ-Ray Log: 0 — 1000

SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Exhibit 19

Hole No. T1-1

Copyrighted 1954 by SIMPSON & WOODARD CO.

COLORADO PRINTING CO., GRAND JUNCTION

DEPARTMENT OF THE INTERIOR
Bureau Mines Administration

MAR 1 4 1955

DRILL HOLE LOG

GEO ENGINEERING

Type of Drill: Core

Logged For: Urado Uranium

Drill-hole No.: T1-2
Total depth: 135
Collar elev.: 6200 T P
Area: Big Gyp Valley

COORDINATES
North: East:
Tie: S 37° E 440'
from NESC - Topaz 1

Claim: Topaz #1
Date started: 12/14/54
Date completed: 12/21/54
Logged by: Mott Drilling

Summary of log: Semifavorable ; OBSS Thick 14.4; SS color L Br ; MS under OBSS Gn Br ; Cbn

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0	69.8					Boulders, Sand, Gravel
69.8	72.8	SS	R Br			Gr Kidneys, V.F.
72.8	75.0	MS	R			Gr particles of MS
75.0	76.8	SS	L Br			Quartzite
76.8	80.0	MS	R Bl Gn			
80.0	81.0	SS	Gn			Quartzite
81.0	86.0	MS	R			
86.0	88.0	SS	L Gn			Quartzite
88.0	93.0	MS	R			
93.0	94.6	SS	Gn			Quartzite
94.6	95.0	MS	R Ye			
95.0	96.6	SS	L Gn			
96.6	100	MS	R			
100	104.6	SS	L Gn			Quartzite
104.6	105.6	MS	R			
105.6	107.4	SS	Wh			Quartzite
107.4	115.6	MS	R Gn			
115.6	116.6	MS	Gn			Sandy
116.6	131.0	SS	L Br			Hem. Stains Med. Grain last foot had green and brown streaks MS
131.0	135.0	MS	R			
		Hole caved at 54' core showed no count				

γ-Ray Log 0 1000

SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

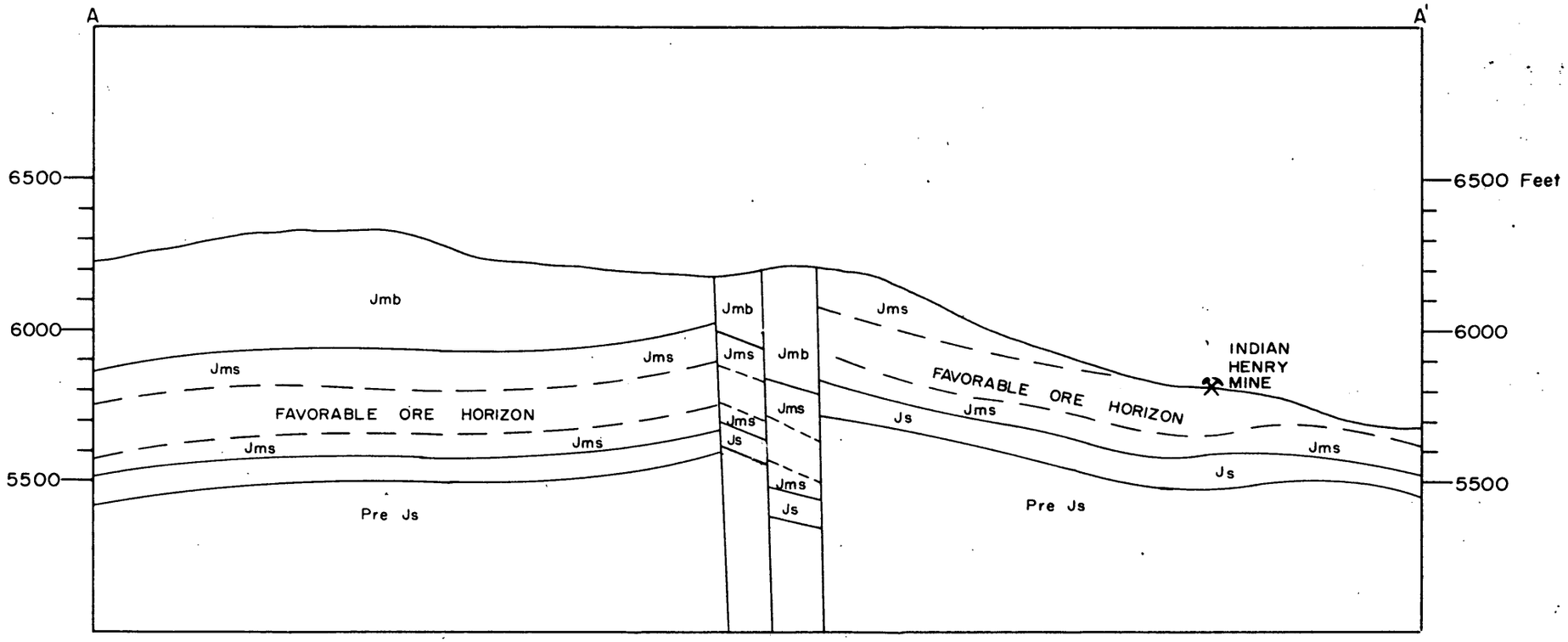
Exhibit 20

Hole No. T1-2

Copyrighted 1954 by SIMPSON & WOODARD CO.

COLORADO PRINTING CO., GRAND JUNCTION

DEPARTMENT OF THE INTERIOR
Bureau Mineral Administration
RECEIVED
MAR 1 4 1978



EXPLANATION

Jmb	BRUSHY BASIN
Jms	SALT WASH
Js	SUMMERVILLE

500 0 500 FEET

FIGURE 5

GEO-ENGINEERING

SECTION A-A' FROM FIGURE 4

D.M.E.A. APPLICATION

ON

TOPAZ GROUP

URADO URANIUM INC.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 1 4 1955

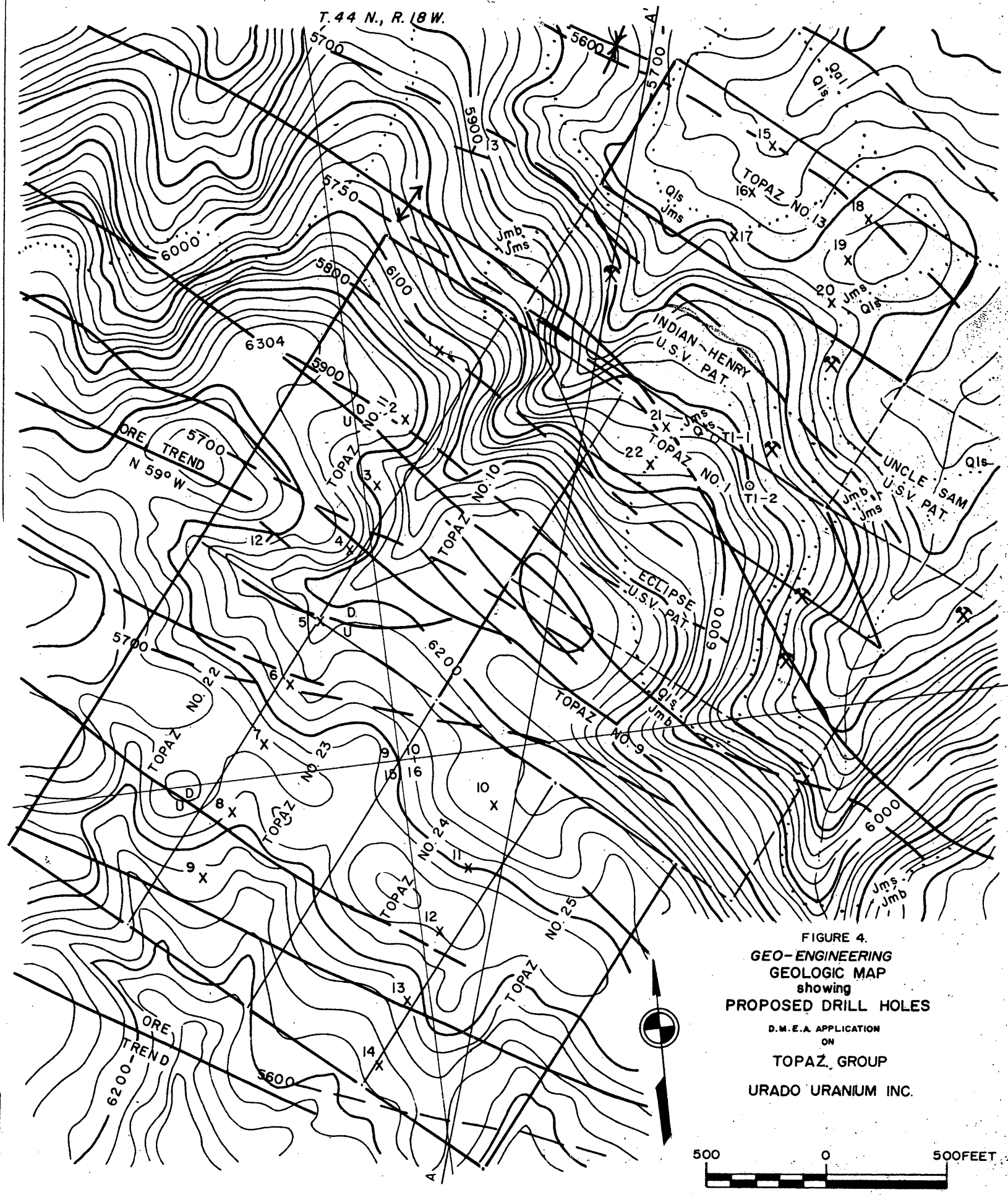
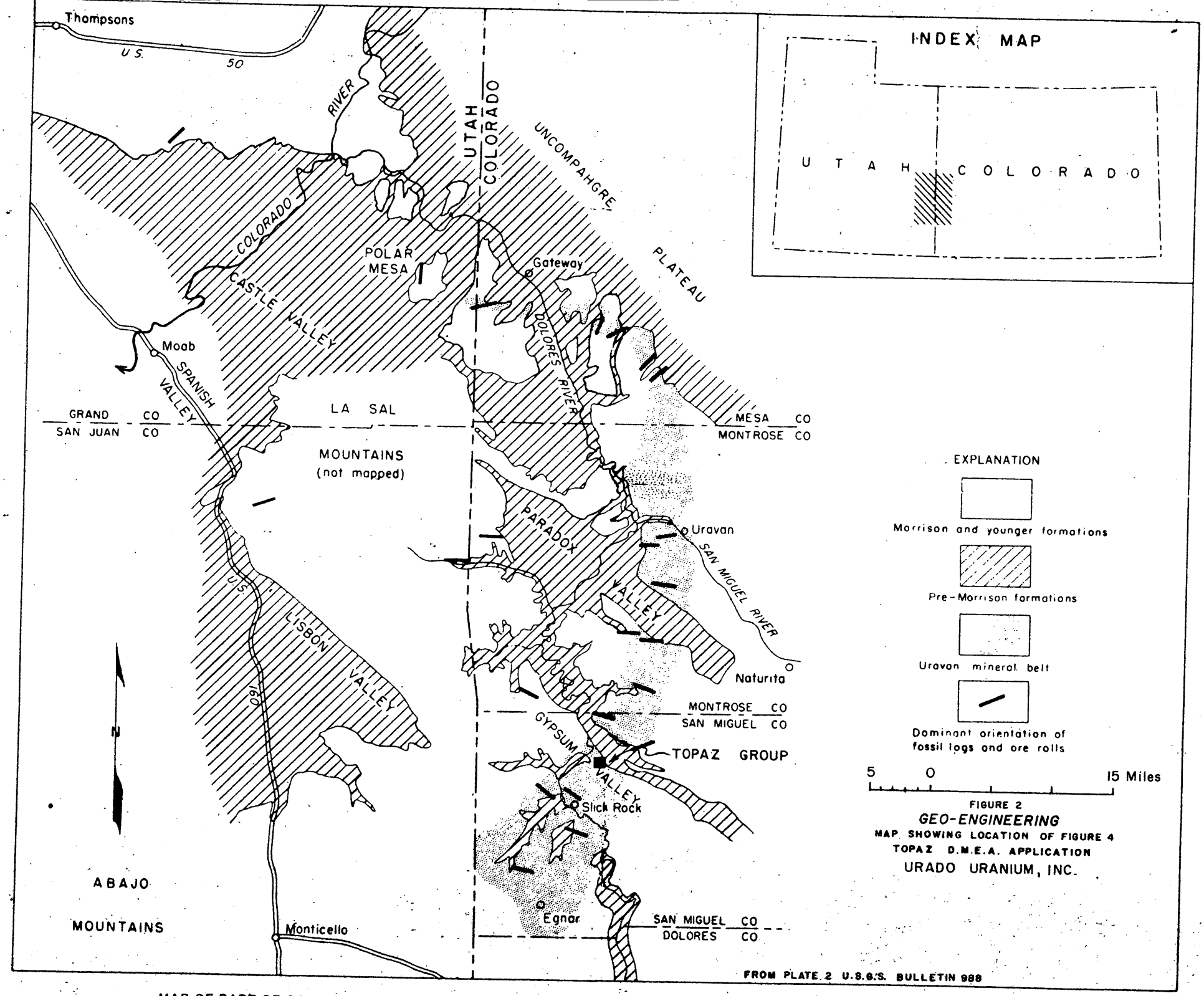


FIGURE 4.
GEO-ENGINEERING
GEOLOGIC MAP
showing
PROPOSED DRILL HOLES

D.M.E.A. APPLICATION
ON
TOPAZ GROUP

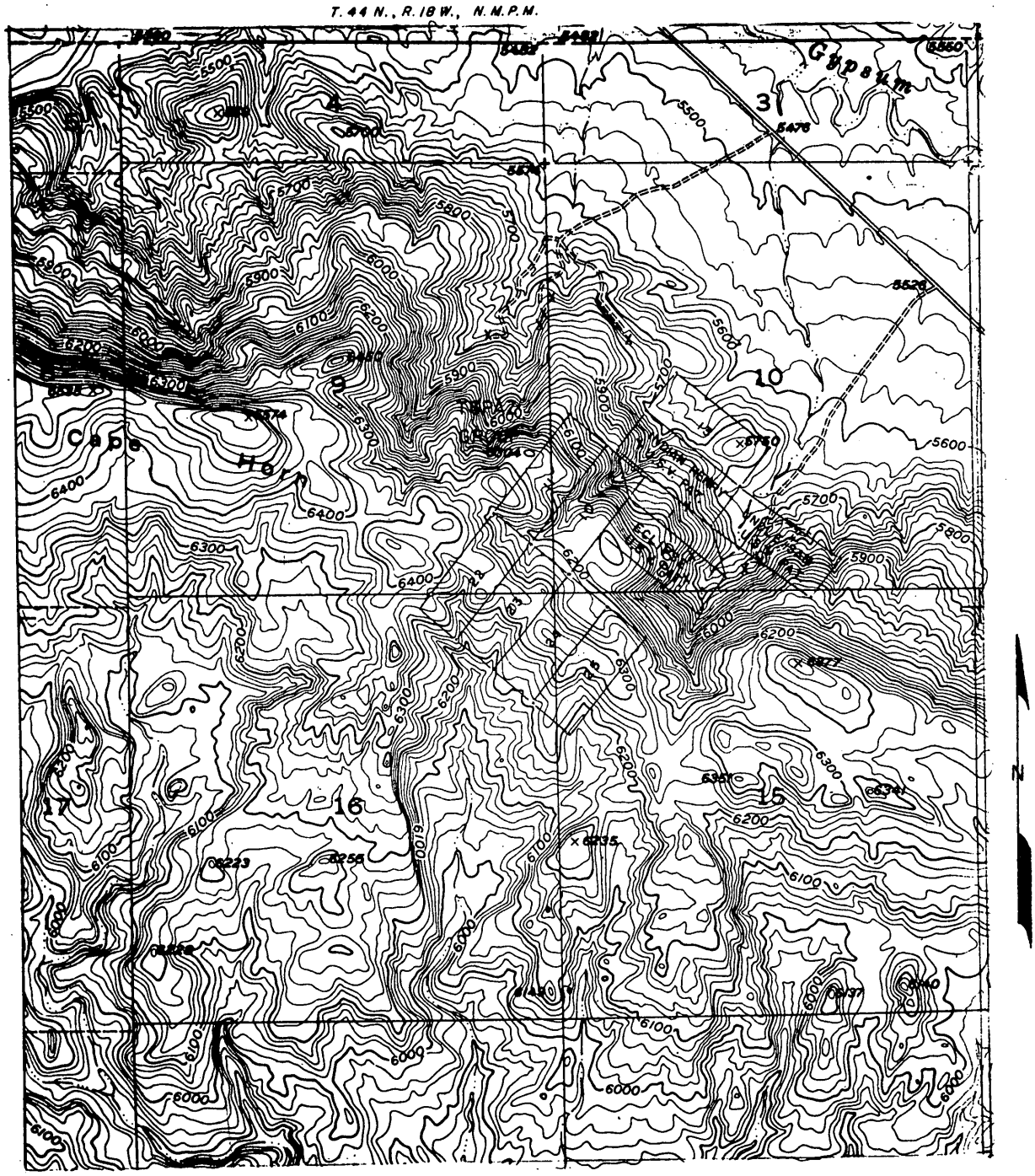
URADO URANIUM INC.

DEPARTMENT OF THE INTERIOR
Outer Continental Shelf Minerals Administration
RECEIVED
MAR 14 1985



MAP OF PART OF COLORADO AND UTAH. SHOWING THE DOMINANT ORIENTATION OF THE FOSSIL LOGS AND ORE ROLLS

PROPERTY OF THE MINERALS
Minerals Administration
RECEIVED
MAR 14 1955



TOPOGRAPHY FROM U.S.G.S. QUADRANGLE HAMM CANYON

FIGURE 3

GEO-ENGINEERING

MAP

SHOWING

TOPAZ CLAIMS

URADO URANIUM, INC.

Scale: 1" = 2000'

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 14 1955

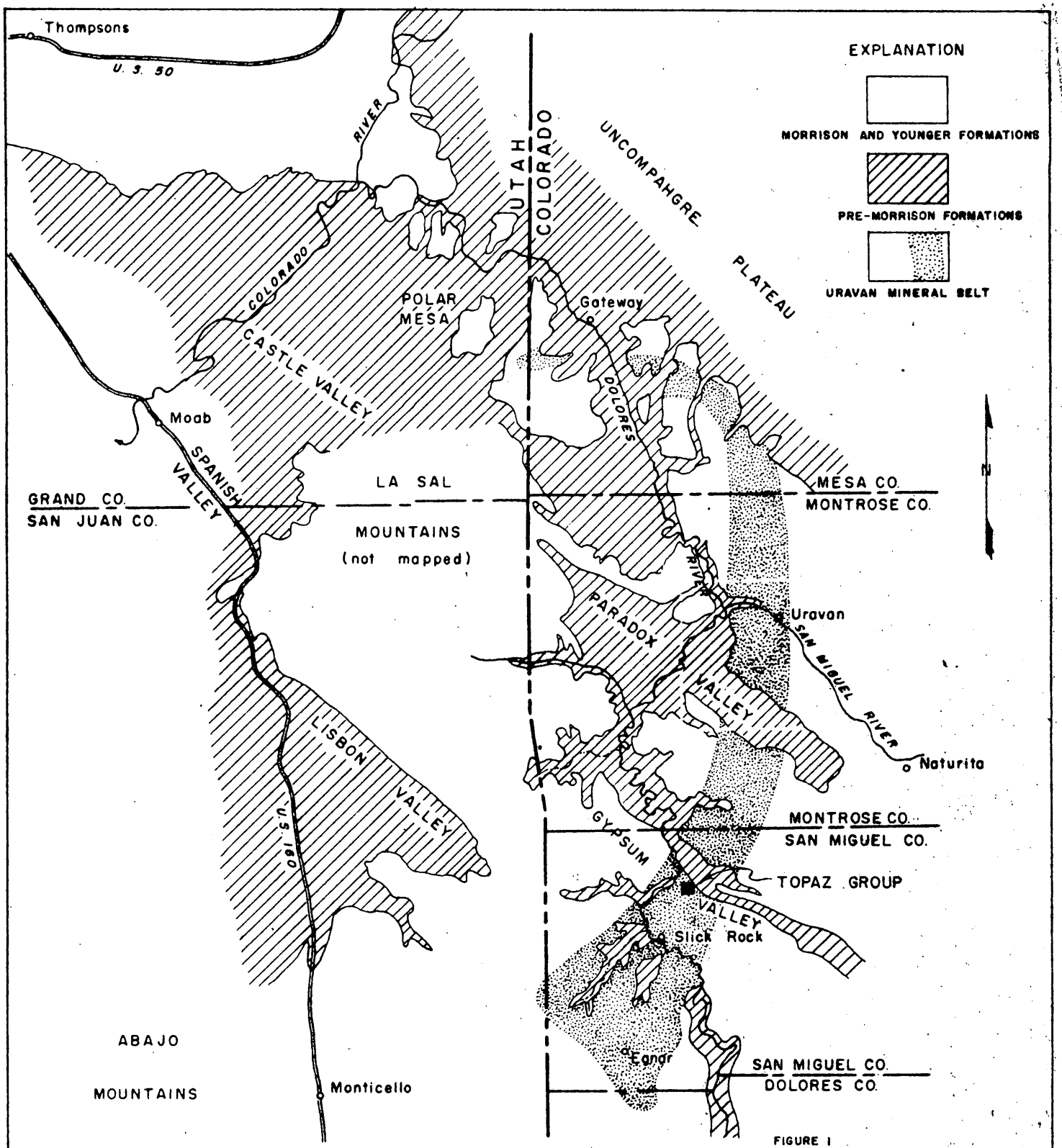


FIGURE I
GEO-ENGINEERING
MAP OF URAVAN MINERAL BELT
SHOWING
LOCATION OF
TOPAZ D.M.E.A. APPLICATION
URADO URANIUM, INC.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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~~DEFENSE MINERALS EXPLORATION ADMINISTRATION~~

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
~~Postoffice Box #431~~
~~Joplin, Missouri~~

OFFICIAL BUSINESS

JOPLIN MAR 10 5 PM 1955 MO.

9

PENALTY FOR PRIVATE USE
PAYMENT OF POSTAGE
(PMGC)

5 PM 1955 MO.

Maps

~~DMEA Operating Committee~~
~~Department of the Interior~~
~~Washington 25, D. C.~~

maps