700

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

Murphy
Leiken
Selfridge

FEB 10 1956

Mr. George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico

Re: Docket No. DMEAp3933 (Uranium)
Simpson No. 1 Plot
Apache County, Arizona

Dear Mr. Simpson:

Reference is made to your application for Government aid in an exploration project on the above-named property.

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, although noting a small amount of uranium mineralization on your property, indicates to us that the possibility of disclosing significant ore reserves is not sufficiently promising to justify Government participation in an exploration project. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

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

Sincerely yours,

Ric Ed. Mitchell

Administrator

FMMurphy/izm 2-9-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHested, Rm. 3210, GSA

2/7/56 gla

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

RECEIVED
FEB - 7 1956

February 6, 1956

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, DMEA Docket 3933, George R. Simpson, Plot No. 1, Navajo Indian Reservation, Apache County, Arizona

I have reviewed the Report of Examination, DMEA Docket 3933, George R. Simpson, dated January 25, and received in this office on January 31. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The applicant was desirous of drilling 440 holes on 612 acres of Navajo Indian land, Apache County, Arizona. The holes were to average 120 feet in depth, and the total cost of the project was estimated at $25,344.

The Field Team recommends, after examination of the property, that the application be denied, inasmuch as the cost of mining the small, scattered lenses or pods of uranium ore on the property would be so great as to make the operation prohibitive.

It is apparent, upon reviewing the field examination report, that AEC drilling in the immediate area, as well as that by the applicant, revealed little to encourage further exploration. Enough drilling already has been done on the property and in the area to constitute a reasonably extensive exploration program with negative results, and we therefore agree that the application should be denied.

The report is being 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.

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

John E. Crawford

Docket Copy
700
Murphy

SUMMARY OF PROPOSED PROJECT

Object: Denial of application for exploration aid.

Docket No.: DMEA-3933

Commodity: Uranium

Applicant: George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico

Property: 612 acres of Navajo permit land situated, approximately, in unsurveyed Section 18, T. 13 N., R. 7 E., District 9 of the Navajo Reservation, Apache County, Arizona

Date of Application: June 23, 1955
Additional information requested.

Grand Junction memorandum received: August 29, 1955

Field examination made: October 18, 1955

Field Team Report received: January 27, 1956

Amount of Application: Original $32,044.00, later revised to $13,164.00

Revised Work Proposed:

Phase I - 72 dry rotary holes about 120 feet deep, rows 100 feet apart and holes spaced 200 feet along rows.

Phase II- 72 dry rotary holes about 100 feet from mineralized holes drilled under Phase I.

Estimated Costs:

Wagon drilling, Phase I	$4,608.00	
Wagon drilling, Phase II	3,456.00	
Bulldozer 50 hours, plus moving	900.00	
Supervision 4 months @ $400 (half time)	1,600.00	
Engineering 4 days @ $200/day	800.00	
Consulting Geologist 6 days @ $120/day	720.00	
Analytical work	280.00	
Accounting 4 months @ $200/month	800.00	
Total		$13,164.00

Excerpts from Field Team Report:

The subject property is situated on the southern flank of the Rattlesnake anticline. It is underlain entirely by the Jurassic Morrison formation.

The ore bodies occur in the lower 40 feet of the Salt Wash member of the Morrison, which is exposed along the eastern boundary of the subject property on the west bank of a dry wash canyon, which runs in a northerly direction.

Along the rim three small uranium ore deposits have been mined out. The deposits consist of a group or cluster of individual small ore bodies separated by varying amounts of barren sandstone. AEC production figures for the whole permit show 639 tons up to July 1, 1955. The average grade of the ore in the area is slightly over 0.20% U_3O_8 with V_2O_5 ranging from 1 to 2 percent.

The AEC drilled numerous holes to the north and east of the subject property, and also on AEC plots No. 1 and No. 2 which are within the Simpson plot along its eastern boundary. The AEC drilling definitely indicates that with increasing distance from the Salt Wash rim on both sides of the dry wash canyon, the frequency and size of ore occurrences diminish appreciably. Just west of AEC plot No. 1, the Applicant drilled about 55 holes, all barren. A similar string was drilled to the north of the plot. Some ore was found by the drilling in the southwest and southeast parts of the permit.

Currently the Capitol Uranium Company is mining 3 to 5 tons daily from a small "rim" deposit.

The field examiners conclude that as the deposits are very small and scattered which necessitated the Applicant to drill on 12-foot centers, the probability of making significant discoveries, with a reasonable expenditure for drilling, is doubtful. Therefore, they recommended that the application should be denied and the Field Team concurred.

Commodity Members' Comments: (excerpts)

N. E. Nelson, USGS, February 2, 1956:

Notes that at least 368 holes, of which 74 are reported ore holes, have been drilled on the property; that ore reserves are estimated at 650 tons of 0.20% U_3O_8. The AEC production figures credit the permit with 639 tons of ore shipped. All of which indicate that ore bodies are small and scattered. Also, that as such small ore bodies could only be economically mined near the rim, any such ore bodies found by the proposed drilling in an area quite distant from the rim would not be commercial.

He concurs in Field Team's denial.

John E. Crawford, USBM, February 5, 1956:

Concurs in recommendation to deny the subject application.

Rare & Miscellaneous Metals Division, F. M. Murphy, February 9, 1956:

The property has been drilled by the AEC, and the Applicant, without finding a significant ore deposit. The ore discovered per hole previously drilled amounts to about 3.5 tons per hole. Data available does not indicate the proposed drilling would achieve better results, therefore, this Division concurs in the Field Team's recommendation that the subject application should be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

2-3-56 dzm

IN REPLY REFER TO:

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

RECEIVED
FEB - 3 1956

February 2, 1956

Re: DMEA 3933
George R. Simpson
Simpson No. 1 Plot
Navajo Indian Reservation
Apache Co., Arizona
$13,164.00 - Uranium

Memorandum

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

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

Subject: Review of Field Team report.

In a somewhat confusing application, Government participation in a non core drilling program was requested. Apparently the program is still being revised. The object of the proposed work is to search for ore bodies behind a long rim exposure of the Salt Wash member, in which are three small mines. One mine is now operating, the production being 3 to 5 tons of ore per day.

In addition to the mining a large amount of drilling has already been done by the applicant and the AEC. At least 368 holes have been drilled on the property and 74 are reported to be ore holes. Ore reserves are estimated at 650 tons of 0.20% U_3O_8 by the applicant. AEC production figures credit the permit with 639 tons, from the three small mines, as of July 1, 1955.

Basing their judgment on the results of the large amount of drilling already done, the examiners conclude that ore bodies that might be found, if further from the rim than 100 feet, due to size and grade are unlikely to be worth mining. The distance from the rim of the proposed drilling exceeds the limiting distance, 100 feet, hence material that might be found probably would not be commercial.

Experience supports the conclusion and the recommendation that the application be denied. I concur with that recommendation.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

RECEIVED
FEB - 3

February 2, 1956

Re: DMEA 3933
George E. Simpson
Simpson No. 1 Plot
Navajo Indian Reservation
Apache Co., Arizona
$13,164.00 - Uranium

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In addition to the mining a large amount of drilling has already been done by the applicant and the AEC. At least 358 holes have been drilled on the property and 74 are reported to be ore holes. Ore reserves are estimated at 650 tons of 0.20% U_3O_8 by the applicant. AEC production figures credit the permit with 639 tons, from the three small mines, as of July 1, 1955.

Basing their judgment on the results of the large amount of drilling already done, the examiners conclude that ore bodies that might be found, if further from the rim than 100 feet, due to size and grade are unlikely to be worth mining. The distance from the rim of the proposed drilling exceeds the limiting distance, 100 feet, hence material that might be found probably would not be commercial.

Experience supports the conclusion and the recommendation that the application be denied. I concur with that recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-2/2/56
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Hosted, 3210

IN REPLY REFER TO:

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

February 2, 1956

RECEIVED
FEB - 3 1956

Re: DMEA 3933
George R. Simpson
Simpson No. 1 Plat
Navajo Indian Reservation
Apache Co., Arizona
$13,164.00 - Uranium

Memorandum

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In addition to the mining a large amount of drilling has already been done by the applicant and the AEC. At least 308 holes have been drilled on the property and 74 are reported to be ore holes. Ore reserves are estimated at 650 tons of 0.20% U_3O_8 by the applicant. AEC production figures credit the permit with 639 tons, from the three small mines, as of July 1, 1955.

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N. E. Nelson

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NENelson:iml
G-2/2/56
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
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IN REPLY REFER TO:

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

February 2, 1956

RECEIVED
FEB - 3 1956

Re: DMEA 3933
George R. Simpson
Simpson No. 1 Plot
Navajo Indian Reservation
Apache Co., Arizona
$13,164.00 - Uranium

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Experience supports the conclusion and the recommendation that the application be denied. I concur with that recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-2/2/56
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Hosted, 3210

2-2-56 lgm

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

RECEIVED
JAN 27 1956

January 25, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 3933 (Uranium), George R. Simpson, Plot No. 1, Navajo Indian Reservation, Apache County, Arizona

Enclosed are the original and three copies of the Joint Report of Examination on the subject docket.

The field examiners conclude that the area contains only small scattered deposits which are not significant.

Denial of the application is indicated more by the small size and low density of distribution of the deposits that may be discovered by exploration than by the fact that they probably cannot be mined at a profit.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
2-1-56
(date)

RECEIVED
JAN 27 1956

IN REPLY REFER TO:
DMEA
Date Rec'd,
JAN 24 1956
BUREAU OF MINES
Denver, Colorado

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

January 20, 1956

TRANSMITTED
JAN 25 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 3933 (Uranium), George R. Simpson, Plot No. 1, Navajo Indian Reservation, Apache County, Arizona

Enclosed are the original and nine copies of a joint engineering and geologic report by Glen Walker, Bureau of Mines, and Carl Roach, Geological Survey, covering their examination of the subject property.

The applicant originally proposed a program consisting of 440 holes 120 feet deep at an estimated cost of $25,344. The program was later revised as described in the examination report.

The examiners conclude that the area contains only small scattered deposits and that a reasonable expenditure for drilling will not result in the discovery of significant amounts of uranium ore.

The project appears to be one of those borderline cases where ore grade material may be found by exploration on the Navajo permit land, but exploration costs will probably be excessive when compared to the value of the ore found by that exploration.

Denial of the application is indicated more by the small size and low density of distribution of the deposits that may be discovered by exploration than by the fact that they probably cannot be mined at a profit.

John F. Shaw
Supervising Mining Engineer

Reviewed by
DMEA OPERATING COMMITTEE
2-1-56
(date)

E. N. Harshman
Member, Field Team

Enclosures (10)
ENHarshman:arh

MINERAL DEPOSITS
DMEA
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JAN 12 1956
U.S.
GEOLOGICAL SURVEY
DENVER, COLORADO

RECEIVED
JAN 27 1956

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

January 10, 1956

Memorandum

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

From: J. William Hasler

Subject: DMEA 3933, Uranium, George R. Simpson Plot No. 1, Navajo Indian Reservation, Apache County, Arizona

TRANSMITTED
JAN 25 1956

George R. Simpson, [redacted] of Farmington, New Mexico, has applied for DMEA assistance to explore for uranium ore on 612 acres of Navajo permit land northwest of the Carrizo Mountains in Apache County, Arizona. The application was referred to the field and a field examination was made October 18 by Carl Roach, U. S. Geological Survey, and Glen Walker, U. S. Bureau of Mines.

The applicant suggested a program of drilling, but did not submit any cost estimate for the program, other than the cost per foot for some 144 holes, averaging about 120 feet in depth. The property lies on the southern flank of the Rattlesnake anticline, and the property is underlain by the Jurassic Morrison formation. The ore bodies occur as clusters of small, individual deposits that can be mined at a profit, provided they occur near the outcrop, but are too small to be considered profitable at distances greater than 100 feet.

Exploration by the Atomic Energy Commission suggests that the density of distribution of these ore deposits is rather low and that assistance by DMEA is not warranted. It is concluded, therefore, that

Reviewed by
DMEA OPERATING COMMITTEE
2-1-56
(date)

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JAN 27 1956

the chances of finding ~~admissable~~ sizable ore bodies at commercial grade on the subject property is not good and it is, therefore, recommended that the application for Government assistance be denied. I concur with the conclusions and recommendations of the examining team.

The required number of maps and applicant's brochure are returned herewith. The AEC was consulted relative to the appraisal of the property.

Howard F. Albee
for J. William Hasler,
Geologist.

JWH/mlr

Enclosures

RECEIVED
JAN 27 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED

JAN 25 1956

DMEA 3933

George R. Simpson

Plot No. 1, Navajo Indian Reservation

Apache County, Arizona

Uranium

Joint Engineering and Geologic Report

by

Carl H. Roach
Geological Survey

Glen Walker
Bureau of Mines

January 19, 1956

Reviewed by
DMEA OPERATING COMMITTEE
2-1-56
(date)

CONTENTS

	Page
Summary and conclusions	1
Introduction	2
Acknowledgment	2
Location, topography, and physical features	3
History, production, and ownership	3
Geology and ore deposits	4
Minable ore reserves	6
Present status	6
Project proposals	8
Conclusions and recommendations	9

ILLUSTRATIONS

Figure	Follows page
1. Index map showing location of the George R. Simpson property, Apache County, Arizona	3
2. Sketch map showing geology of the George R. Simpson property, Apache County, Arizona	4

DMEA 3933

RECEIVED
JAN 27 1956

George R. Simpson Plot No. 1, Navajo Indian Reservation
Apache County, Arizona

SUMMARY AND CONCLUSIONS

George R. Simpson, of Farmington, New Mexico, applied for DMEA assistance to explore for uranium ore on 612 acres of Navajo permit land northwest of the Carrizo Mountains, Apache County, Arizona.

The applicant's proposal for an exploration project has been revised at least twice by himself or others. On August 8, 1955, Warren E. Wiley, secretary of Capitol Uranium Company, lessee, submitted a revised program consisting of 60 dry rotary Stage I holes spaced 200 feet apart in 20 rows; Stage II consisted of a similar number of holes, but drilled as offsets to Stage I mineralized holes at a 100-foot interval. This project consisting of 120 holes, totaling 16,800 feet, was estimated to cost $13,164.00. During the field examination Walter Bentley, mining geologist for Capitol Uranium Company, outlined a dry rotary drilling project composed of 72 Stage I holes drilled about 120 feet deep in four separate groups on the plot; with a like number of Stage II holes. Stage I holes, according to Bentley, were to be in rows 100 feet apart with the holes 200 feet apart in the row. No mention of the cost of the program was made by Bentley other than to state the previous drilling had been done for $0.48 per foot.

On October 18, 1955, the property was examined by a Region III DMEA team. The examiners conclude that the exploration targets are wide spaced and small and that exploration costs would probably exceed the value of any ore discovered. Denial of the application is recommended.

INTRODUCTION

George R. Simpson, of Farmington, New Mexico, applied for DMEA assistance to explore for uranium ore deposits on about 612 acres of Indian permit land in Apache County, Arizona.

During the field examination Walter Bentley, a mining geologist for Capitol Uranium Company, Farmington, New Mexico, and the applicant, revised the original project outlined in the application. They decided to drill, as a first stage of the program, 72 dry rotary holes about 120 feet deep in four localities on the property. These stage I holes were to be in rows 100 feet apart with the holes 200 feet apart in the row. Stage II consisted also of 72 holes placed at a distance of 100 feet from stage I mineralized holes. No cost estimate of the program was submitted other than the statement by Bentley that their cost of wagon drilling to similar depths was about $0.48 per foot. A field examination of the property was made on October 18, 1955, by a Region III DMEA examining team composed of Carl Roach, geologist, U. S. Geological Survey, and Glen Walker, mining engineer, U. S. Bureau of Mines.

The AEC was consulted relative to the appraisal of the property.

ACKNOWLEDGMENT

George Simpson, the applicant, and Walter Bentley, mining geologist, accompanied the examining team and offered considerable information concerning the subject and adjacent properties.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The exact location of the permit area is not known because the country has not had a cadastral survey, but it is in about sec. 18, T. 13 N., R. 7 E., in northeastern Apache County, Arizona, on District 9 of the Navajo Reservation about 2-1/2 miles south of the Rattlesnake mine (fig. 1).

The topography is marked by mesas cut out of the Jurassic Morrison formation by steep-walled, but rather broad valleys. Sah Tah Mesa, on which the subject land is located, is flat topped to very gently rolling. The surface is sparsely covered by scrubby cedar and sagebrush. There is no timber of sufficient size for mining purposes. Water for any use can be obtained about 8 miles south of the property. Labor is plentiful on the reservation and is reported to be quite acceptable underground after a short training period.

HISTORY, PRODUCTION, AND OWNERSHIP

Available information indicates uranium-vanadium minerals were first discovered in the Salt Wash outcrops of the area about 1918. There was, however, only a very slight production from the district prior to 1942. AEC figures show that the Rattlesnake mine, the largest in the general area, had produced 2,608 tons of 0.22 percent U_3O_8 and 1.8 percent V_2O_5 ore to July 1, 1955. The same source indicates that a total of 639 tons, averaging 0.26 percent U_3O_8 and 2.02 percent V_2O_5 have been mined from the subject property to July 1, 1955.

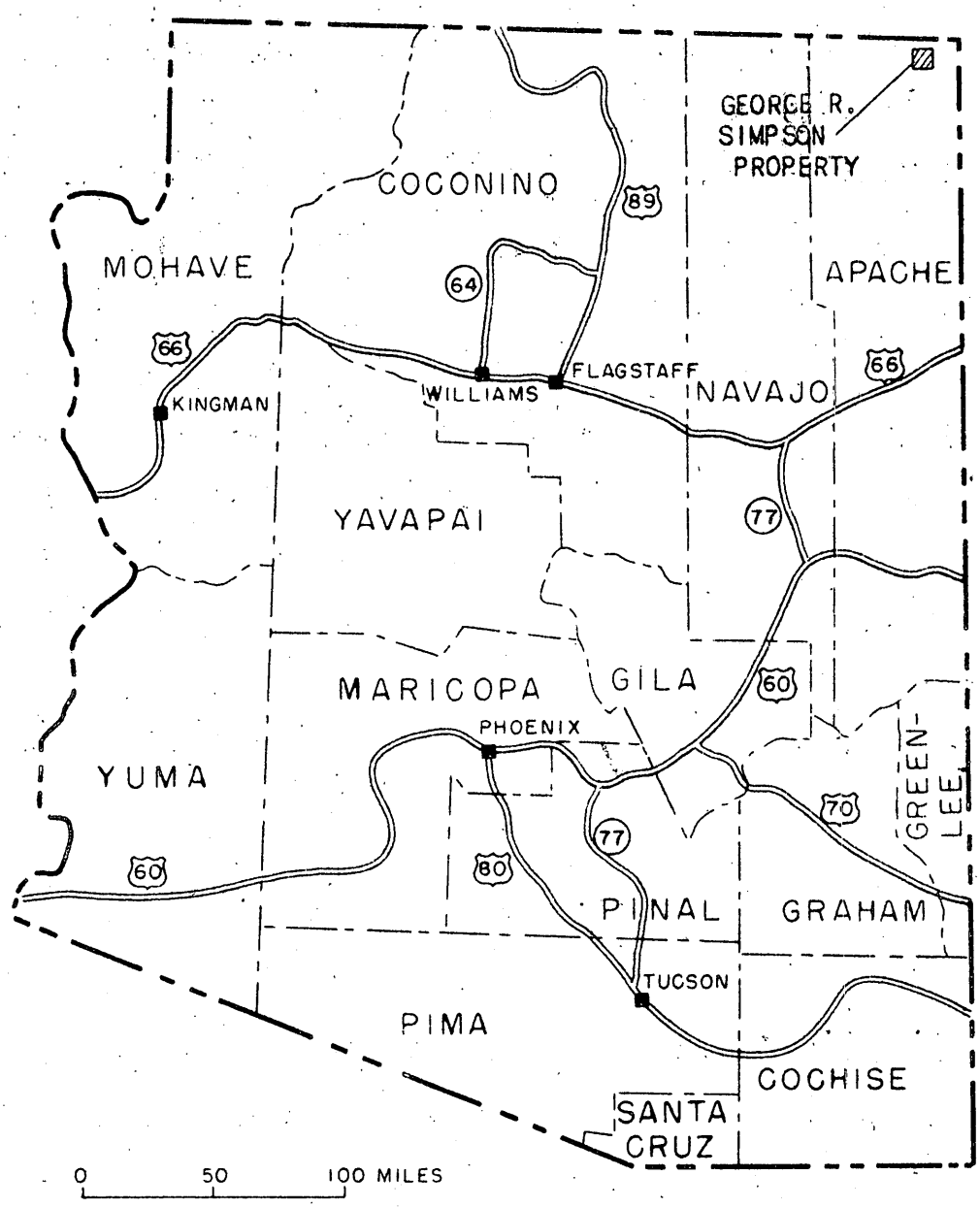


FIGURE 1. INDEX MAP SHOWING LOCATION OF THE GEORGE R. SIMPSON PROPERTY, APACHE COUNTY, ARIZONA.

During the field investigation Simpson produced his original permit negotiated by the Navajo Indian Council and approved by the Secretary of the Interior.

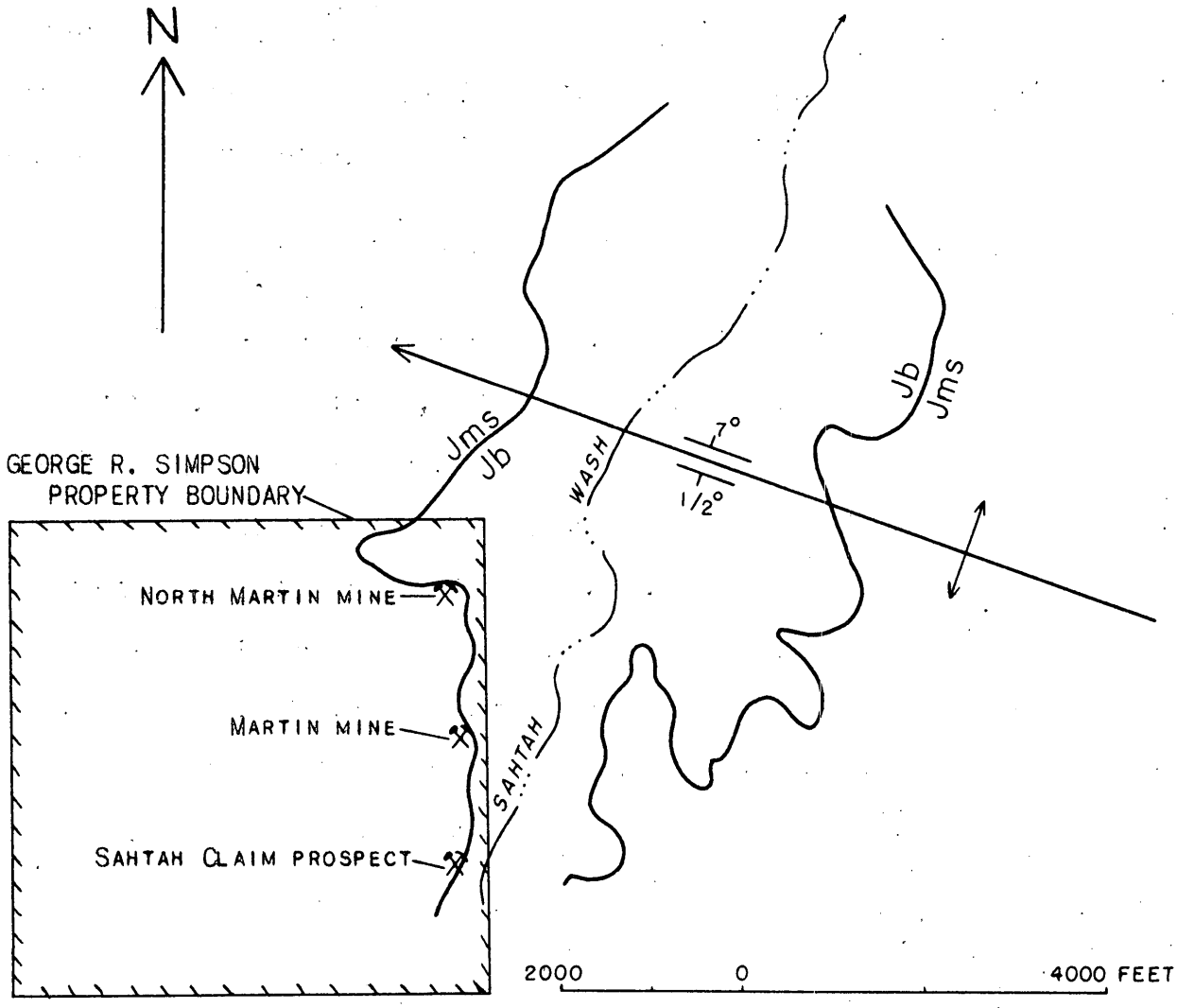
GEOLOGY AND ORE DEPOSITS

The subject property occurs on the southern flank of the Rattlesnake anticline, Apache County, Arizona. This anticlinal structure is asymmetric toward the north and, hence, the sedimentary rocks dip about 1/2° to the south of the axis of the structure and about 7° to the north. The anticline trends about N. 80° W. (fig. 2).

The applicant's property is underlain entirely by the Jurassic Morrison formation. In the northwest Carrizo area the Morrison formation is divided into four members which are, from top to bottom, as follows: The Brushy Basin, Westwater Canyon, Recapture, and Salt Wash members.

The Brushy Basin member is about 220 feet thick and consists of pink and green shales and dark, well-indurated, fine-grained sandstone. The Westwater Canyon member is about 200 feet thick and consists of yellowish-brown friable sandstone, with interbedded green shale layers. The Recapture member consists of light brown sandstones and chocolate-brown shales, and is about 140 feet thick.

The Salt Wash member is about 180 feet thick, and consists of gray and brown sandstones and intercalated mudstones and clays. In the northwest Carrizo area, the lower 40 feet of the Salt Wash member is the ore-bearing horizon.



EXPLANATION

Jb / Jms — GEOLOGIC CONTACT BETWEEN JURASSIC BLUFF SANDSTONE AND SALT WASH MEMBER OF JURASSIC MORRISON FORMATION

SMALL MINE OR PROSPECT

RATTLESNAKE ANTICLINE, SHOWING DIRECTION OF PLUNGE

7° — STRIKE AND DIP OF BEDS

Note: BASE FROM A.E.C. REPORT RME-9. PROPERTY BOUNDARY FROM APPLICANTS MAP.

FIGURE 2. SKETCH MAP SHOWING GEOLOGY OF THE GEORGE R. SIMPSON PROPERTY AND VICINITY, APACHE COUNTY, ARIZONA.

The ore bodies in the Northwest Carrizo area occur in the lower 40 feet of the Salt Wash member of the Jurassic Morrison formation. Several small ore deposits occur along Sah Tah Wash, in the area of the subject property. During the field examination, the North Martin and Martin mines were examined in detail (fig. 2). These mine investigations revealed that the ore deposits tend to be very small, and show a close relation to small festoon structures. In fact, it would be more correct to view the mines in this region as consisting of a group, or cluster, of individual small ore bodies separated by varying amounts of barren sandstone. The ore in this area has probably been mined by virtue of the fact that it crops out and very little expenditure is required to explore for it. Of the known ore bodies near the subject property it is thought that none of them could be considered as profitable if they occur at depths greater than about 100 feet. The exploration by the Atomic Energy Commission, and the drilling done by the applicant both seem to suggest that the density of distribution of these small ore bodies must be very low on the subject property. Just west of AEC plot No. 1 (See applicant's map) the applicant has drilled about 55 drill holes in a line without penetrating ore or mineralized material. These drill holes are spaced on centers which range from 12-1/2 to 50 feet. A similar string of barren drill holes is located to the north of AEC plot No. 1. The results of this drilling indicate that the ore bodies become progressively smaller west of Sah Tah Wash, and the density of distribution of the small ore bodies becomes very low. Of the two mineralized areas discovered by the great amount of ~~drill~~

drilling done by the applicant, it was considered necessary by the applicant to block out reserves by drilling on 12-1/2 foot centers. It is concluded that the amount of drilling needed to discover and reasonably well delineate the small deposits underlying the applicant's property would not be economically feasible and not easily justified.

MINABLE ORE RESERVES

According to data obtained from wagon drilling, directed by Bentley, there are 650 tons of reserves which average slightly over 0.20 percent U_3O_8 currently on the property. These reserves are probably made up of more than one deposit and are about 600 feet west of the nearest mine working. These deposits are about 90 feet below the surface and can be made accessible by sinking an incline from a small side canyon, a distance of about 100 feet. Unless the initial production bonus applies to this property, it appears rather doubtful that a profit would be realized from the extraction of these reserves. One of the areas in which DMEA exploration was proposed is immediately west of these unmined reserves.

PRESENT STATUS

Currently, under a working contract, the Capitol Uranium Company is mining 3 to 5 tons daily from a small "rim" deposit.

The equipment consists of 105 cfm portable air compressor, jack hammer mounted on a pneumatic leg, 2 or 3 fourteen cu. ft. end-dump cars and about a 20-ton wooden ore bin. Capitol also has a truck

mounted wagon drill with which they have put down a reported 368 holes on the property. The holes are spaced from 12 to 200 feet apart. Seventy-four of them are reported to contain ore-grade material as determined by radiometric probing. Some of the holes were later probed by AEC whose results agreed closely with Capitol's.

Approximately 1,800 feet north of the small workings now in operation, the Martin mine of the Vanadium Corp. of America is reported to have produced a few thousand tons of uranium-vanadium ore. These underground workings are rather extensive and apparently the ore was extracted from a number of deposits that occurred in a group sufficiently closely spaced to afford a feasible operation. The largest stope noted was approximately 30 by 65 feet in horizontal extent. The ore was probably in bands not exceeding 3 feet in thickness; however, some stopes are 10 to 12 feet high, indicating there was more than one band. Some sedimentary structures noted, along with the extent and distribution of the workings, substantiate the belief the deposits were small, discontinuous, and of erratic grade.

The Capitol Uranium Company drove a drift approximately 550 feet west from the old VCA workings mentioned previously to another group of small deposits which are now exhausted. The applicant states that about 800 tons were mined from this area; however, the AEC production figures up to July 1, 1955, include only 639 tons for the whole permit. On the surface there was a line of holes about 1,550 feet long spaced from 25 to 50 feet apart, extending south from this mine to the area designated as containing the unmined reserve. All these holes were

barren except two which were within 125 feet of the latter described workings. Another area proposed to be drilled with DMEA assistance is immediately west of this underground work.

PROJECT PROPOSALS

The applicant's original proposal consisted of two stages. Stage I included 20 lines of wagon-drill holes each 500 feet long, with holes apaced at 50 feet intervals or 220 holes totaling 26,400 feet. Stage II consisted of drilling additional holes spaced on 12-1/2 foot centers offsetting mineralized ones. This program was estimated to cost $32,044.00. No mention was made as to the spacing of the rows or lines of holes to be drilled in Stage I and neither was there any specific area designated in which the work was to be conducted.

A modified program was submitted later by Warren E. Wiley, secretary of Capitol Uranium Company, which outlined a two-stage wagon drilling project composed of 20 lines of holes 600 feet long with the holes 200 feet apart in the lines or 80 holes totaling 9,600 feet. In the second stage 60 holes were to be used to offset mineralized holes at 100-foot intervals. The total cost of this project was estimated to be $13,164.00. Here again the distance between lines of holes was not specified.

During the DMEA field investigation Walter Bentley, mining geologist for Capitol Uranium Company, outlined a third program to be conducted in four separate areas on the property near previously indicated mineralization. The proposal consisted of 72 wagon drill holes

in rows 100 feet apart with the holes 200 feet apart in the rows. Nothing specifically was mentioned as to the cost of this program other than to say past experience indicated the work could be done for about $0.48 per foot.

The examining team has no exploration proposal for this property.

CONCLUSIONS AND RECOMMENDATIONS

Since the general area is one of the oldest uranium-vanadium districts on the Plateau, the AEC has thoroughly prospected it by drilling, outcrop and mine mapping. According to AEC geologists, all the profitable deposits are found either on the outcrop or within a few tens of feet from it. The AEC drilling definitely indicates that with increasing distance from the Salt Wash rim on both sides of the canyon the frequency and size of ore occurrences diminish appreciably.

Observations made during the field examination show that the deposits exploited were very small and erratic which necessitated drilling, in some areas, on 12-foot centers. A study of the geologic habit of the area, particularly in regard to primary sedimentary structures, indicates that with a reasonable expenditure for drilling the probability of making additional significant discoveries is doubtful.

It is, therefore, recommended that this application for DMEA assistance be denied.

1/30/56 glu

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

JAN 26 1956
RECEIVED

January 25, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 3933 (Uranium), George R. Simpson, Plat No. 1, Navajo Indian Reservation, Apache County, Arizona

Enclosed are the original and three copies of the Joint Report of Examination on the subject docket.

The field examiners conclude that the area contains only small scattered deposits which are not significant.

Denial of the application is indicated more by the small size and low density of distribution of the deposits that may be discovered by exploration than by the fact that they probably cannot be mined at a profit.

DMEA Field Team, Region III

By W. M. Trever
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
2-1-56
(date)

IN REPLY REFER TO:

DMEA
Date Rec'd.

JAN 24 1956

BUREAU OF MINES
Denver, Colorado

RECEIVED JAN 27 1956

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

January 20, 1956

TRANSMITTED
JAN 25 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 3933 (Uranium), George R. Simpson, Plot No. 1, Navajo Indian Reservation, Apache County, Arizona

Enclosed are the original and nine copies of a joint engineering and geologic report by Glen Walker, Bureau of Mines, and Carl Roach, Geological Survey, covering their examination of the subject property.

The applicant originally proposed a program consisting of 440 holes 120 feet deep at an estimated cost of $25,344. The program was later revised as described in the examination report.

The examiners conclude that the area contains only small scattered deposits and that a reasonable expenditure for drilling will not result in the discovery of significant amounts of uranium ore.

The project appears to be one of those borderline cases where ore grade material may be found by exploration on the Navajo permit land, but exploration costs will probably be excessive when compared to the value of the ore found by that exploration.

Denial of the application is indicated more by the small size and low density of distribution of the deposits that may be discovered by exploration than by the fact that they probably cannot be mined at a profit.

John F. Shaw
John F. Shaw
Supervising Mining Engineer

Reviewed by
DMEA OPERATING COMMITTEE
2-1-56
(date)

E. N. Harshman
E. N. Harshman
Member, Field Team

Enclosures (10)
ENHarshman:arh

MINERAL DEPOSITS
DMEA
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JAN 12 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

RECEIVED
JAN 9 1956

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

January 10, 1956

Memorandum

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

TRANSMITTED
JAN 25 1956

From: J. William Hasler

Subject: DMEA 3933, Uranium, George R. Simpson Plot No. 1, Navajo Indian Reservation, Apache County, Arizona

George R. Simpson, [redacted] of Farmington, New Mexico, has applied for DMEA assistance to explore for uranium ore on 612 acres of Navajo permit land northwest of the Carrizo Mountains in Apache County, Arizona. The application was referred to the field and a field examination was made October 18 by Carl Roach, U. S. Geological Survey, and Glen Walker, U. S. Bureau of Mines.

The applicant suggested a program of drilling, but did not submit any cost estimate for the program, other than the cost per foot for some 144 holes, averaging about 120 feet in depth. The property lies on the southern flank of the Rattlesnake anticline, and the property is underlain by the Jurassic Morrison formation. The ore bodies occur as clusters of small, individual deposits that can be mined at a profit, provided they occur near the outcrop, but are too small to be considered profitable at distances greater than 100 feet.

Exploration by the Atomic Energy Commission suggests that the density of distribution of these ore deposits is rather low and that assistance by DMEA is not warranted. It is concluded, therefore, that

Approved by
DMEA OPERATING COMMITTEE
2-1-56
(date)

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JAN 27 1956

the chance~~s~~ of finding ~~advisable~~ Sizable ore bodies at commercial grade on the subject property is not good and it is, therefore, recommended that the application for Government assistance be denied. I concur with the conclusions and recommendations of the examining team.

The required number of maps and applicant's brochure are returned herewith. The AEC was consulted relative to the appraisal of the property.

Howard F. Albee
for J. William Hasler,
Geologist.

JWH/mlr

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

RECEIVED
JAN 27 1956

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED
JAN 25 1956

DMEA 3933

George R. Simpson

Plot No. 1, Navajo Indian Reservation

Apache County, Arizona

Uranium

Joint Engineering and Geologic Report

by

Reviewed by
DMEA OPERATING COMMITTEE
2-1-56
(date)

Carl H. Roach
Geological Survey

Glen Walker
Bureau of Mines

January 19, 1956

CONTENTS

	Page
Summary and conclusions	1
Introduction	2
Acknowledgment	2
Location, topography, and physical features	3
History, production, and ownership	3
Geology and ore deposits	4
Minable ore reserves	6
Present status	6
Project proposals	8
Conclusions and recommendations	9

ILLUSTRATIONS

Figure	Follows page
1. Index map showing location of the George R. Simpson property, Apache County, Arizona	3
2. Sketch map showing geology of the George R. Simpson property, Apache County, Arizona	4

DMEA 3953

George R. Simpson Plot No. 1, Navajo Indian Reservation
Apache County, Arizona

SUMMARY AND CONCLUSIONS

George R. Simpson, of Farmington, New Mexico, applied for DMEA assistance to explore for uranium ore on 612 acres of Navajo permit land northwest of the Carrizo Mountains, Apache County, Arizona.

The applicant's proposal for an exploration project has been revised at least twice by himself or others. On August 8, 1955, Warren E. Wiley, secretary of Capitol Uranium Company, lessee, submitted a revised program consisting of 60 dry rotary Stage I holes spaced 200 feet apart in 20 rows; Stage II consisted of a similar number of holes, but drilled as offsets to Stage I mineralized holes at a 100-foot interval. This project consisting of 120 holes, totaling 16,800 feet, was estimated to cost $13,164.00. During the field examination Walter Bentley, mining geologist for Capitol Uranium Company, outlined a dry rotary drilling project composed of 72 Stage I holes drilled about 120 feet deep in four separate groups on the plot; with a like number of Stage II holes. Stage I holes, according to Bentley, were to be in rows 100 feet apart with the holes 200 feet apart in the row. No mention of the cost of the program was made by Bentley other than to state the previous drilling had been done for $0.48 per foot.

On October 18, 1955, the property was examined by a Region III DMEA team. The examiners conclude that the exploration targets are wide spaced and small and that exploration costs would probably exceed the value of any ore discovered. Denial of the application is recommended.

INTRODUCTION

George R. Simpson, of Farmington, New Mexico, applied for DMEA assistance to explore for uranium ore deposits on about 612 acres of Indian permit land in Apache County, Arizona.

During the field examination Walter Bentley, a mining geologist for Capitol Uranium Company, Farmington, New Mexico, and the applicant, revised the original project outlined in the application. They decided to drill, as a first stage of the program, 72 dry rotary holes about 120 feet deep in four localities on the property. These stage I holes were to be in rows 100 feet apart with the holes 200 feet apart in the row. Stage II consisted also of 72 holes placed at a distance of 100 feet from stage I mineralized holes. No cost estimate of the program was submitted other than the statement by Bentley that their cost of wagon drilling to similar depths was about $0.48 per foot. A field examination of the property was made on October 18, 1955, by a Region III DMEA examining team composed of Carl Roach, geologist, U. S. Geological Survey, and Glen Walker, mining engineer, U. S. Bureau of Mines.

The AEC was consulted relative to the appraisal of the property.

ACKNOWLEDGMENT

George Simpson, the applicant, and Walter Bentley, mining geologist, accompanied the examining team and offered considerable information concerning the subject and adjacent properties.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The exact location of the permit area is not known because the country has not had a cadastral survey, but it is in about sec. 18, T. 13 N., R. 7 E., in northeastern Apache County, Arizona, on District 9 of the Navajo Reservation about 2-1/2 miles south of the Rattlesnake mine (fig. 1).

The topography is marked by mesas cut out of the Jurassic Morrison formation by steep-walled, but rather broad valleys. Sah Tah Mesa, on which the subject land is located, is flat topped to very gently rolling. The surface is sparsely covered by scrubby cedar and sagebrush. There is no timber of sufficient size for mining purposes. Water for any use can be obtained about 8 miles south of the property. Labor is plentiful on the reservation and is reported to be quite acceptable underground after a short training period.

HISTORY, PRODUCTION, AND OWNERSHIP

Available information indicates uranium-vanadium minerals were first discovered in the Salt Wash outcrops of the area about 1918. There was, however, only a very slight production from the district prior to 1942. AEC figures show that the Rattlesnake mine, the largest in the general area, had produced 2,608 tons of 0.22 percent U_3O_8 and 1.8 percent V_2O_5 ore to July 1, 1955. The same source indicates that a total of 639 tons, averaging 0.26 percent U_3O_8 and 2.02 percent V_2O_5 have been mined from the subject property to July 1, 1955.

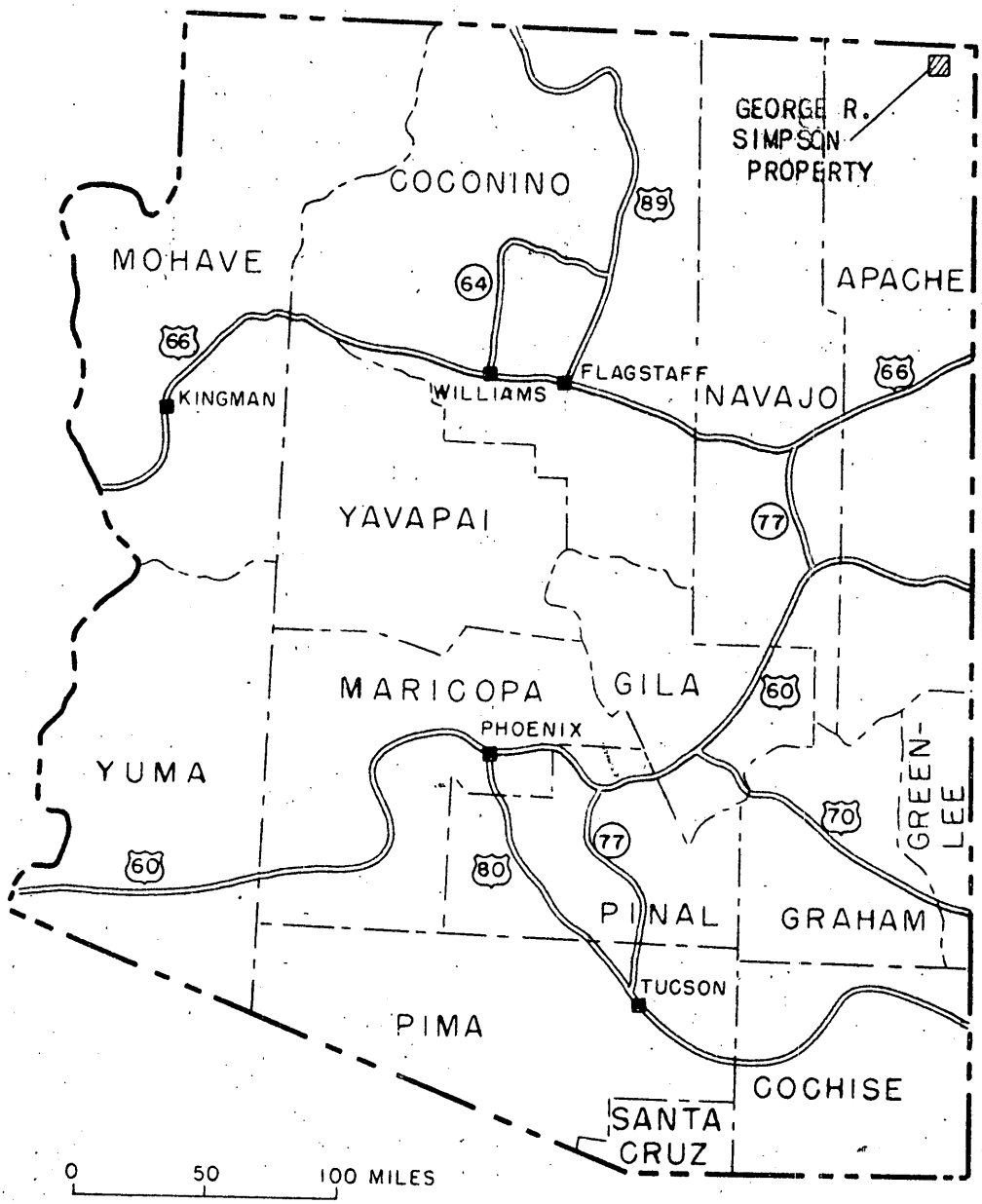


FIGURE 1. INDEX MAP SHOWING LOCATION OF THE GEORGE R. SIMPSON PROPERTY, APACHE COUNTY, ARIZONA.

During the field investigation Simpson produced his original permit negotiated by the Navajo Indian Council and approved by the Secretary of the Interior.

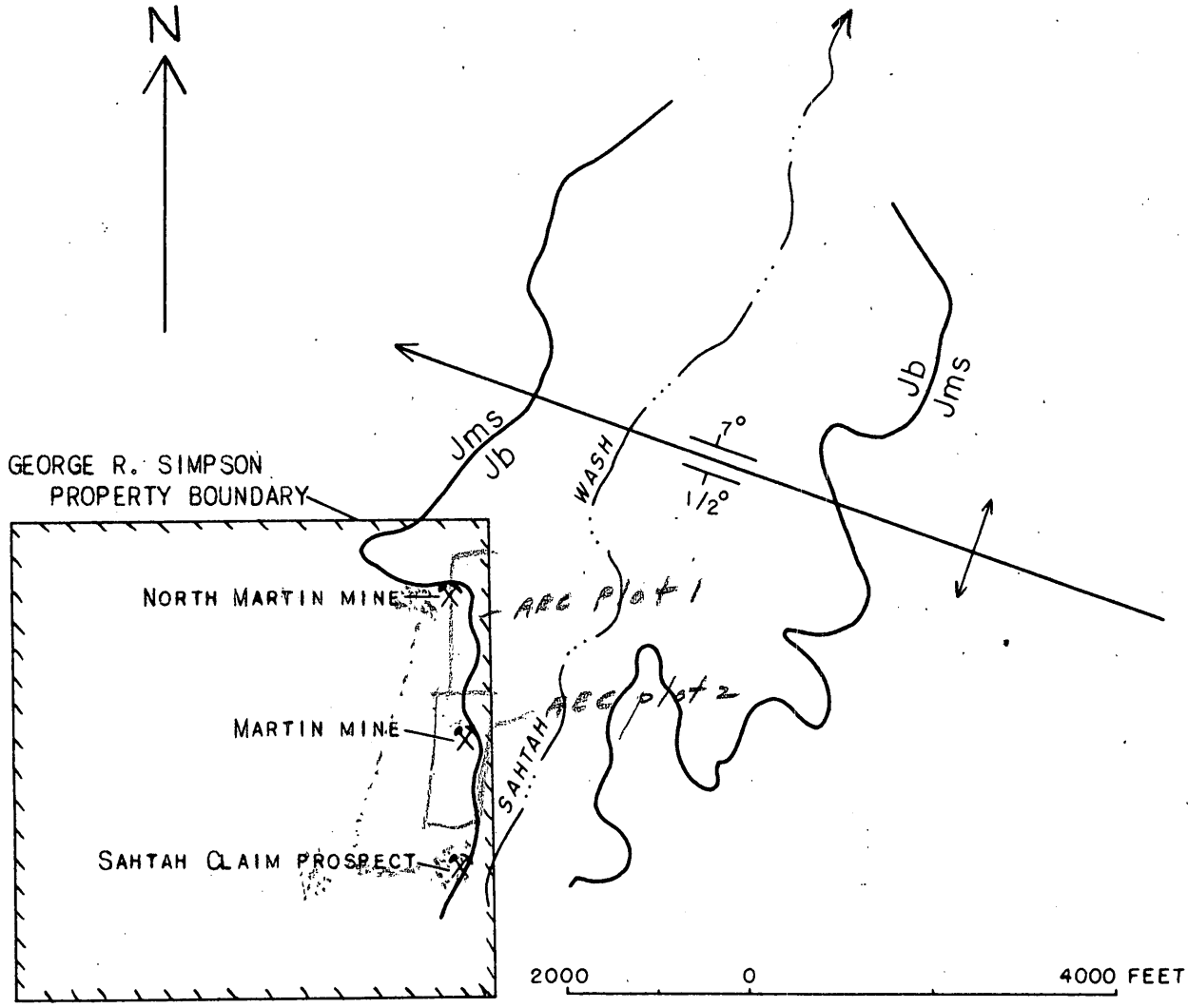
GEOLOGY AND ORE DEPOSITS

The subject property occurs on the southern flank of the Rattlesnake anticline, Apache County, Arizona. This anticlinal structure is asymmetric toward the north and, hence, the sedimentary rocks dip about 1/2° to the south of the axis of the structure and about 7° to the north. The anticline trends about N. 80° W. (fig. 2).

The applicant's property is underlain entirely by the Jurassic Morrison formation. In the northwest Carrizo area the Morrison formation is divided into four members which are, from top to bottom, as follows: The Brushy Basin, Westwater Canyon, Recapture, and Salt Wash members.

The Brushy Basin member is about 220 feet thick and consists of pink and green shales and dark, well-indurated, fine-grained sandstone. The Westwater Canyon member is about 200 feet thick and consists of yellowish-brown friable sandstone, with interbedded green shale layers. The Recapture member consists of light brown sandstones and chocolate-brown shales, and is about 140 feet thick.

The Salt Wash member is about 180 feet thick, and consists of gray and brown sandstones and intercalated mudstones and clays. In the northwest Carrizo area, the lower 40 feet of the Salt Wash member is the ore-bearing horizon.



EXPLANATION

Jb / Jms — GEOLOGIC CONTACT BETWEEN JURASSIC BLUFF SANDSTONE AND SALT WASH MEMBER OF JURASSIC MORRISON FORMATION

SMALL MINE OR PROSPECT

RATTLESNAKE ANTICLINE, SHOWING DIRECTION OF PLUNGE

7° — STRIKE AND DIP OF BEDS

Note: BASE FROM A.E.C. REPORT RME-9. PROPERTY BOUNDARY FROM APPLICANTS MAP.

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CONCLUSIONS AND RECOMMENDATIONS

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It is, therefore, recommended that this application for DMEA assistance be denied.

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

RECEIVED
SEP 15 1955

September 9, 1955

224 Rev Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3933 (Uranium), George R. Simpson, Simpson No. 1 Plot, Apache County, Arizona

Enclosed are two copies each of the following items which were received after the subject brochure was transmitted to your office on August 25, 1955.

1. Letter dated September 2, 1955, from the Chairman of the Operating Committee DMEA to W. M. Traver

2. Memorandum dated August 24, 1955, from E. E. Nelson to E. W. Ellis-Review of application

3. Memoranda dated August 10, 1955 and August 23, 1955 from John R. Crawford to Earnest William Ellis-Reviews of application and supplementary data.

You may wish to forward this information to the field.

W. M. Traver

W. M. Traver

Enclosures

JC:ab
cc: Sec. Op. Comm. (4)
Docket 3933
Harshman
Hasler
Connors
Chron.

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

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SEP 15 1955

September 9, 1955

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Denver 2, Colorado

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

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SEP 1 5 1955

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Denver 2, Colorado

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WASHINGTON 25, D. C.

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Enclosures

JC:ab
cc: Sec. Op. Comm. (4)
Docket 3933
Harshman
Hasler
Connors
Chron.

Surname 700

Murphy
Ellis
Selfridge

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

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

SEP -2 1955

Re: Docket No. DMEA-3933 (Uranium)
George R. Simpson
Simpson No. 1 Plot
Apache County, Arizona

Dear Mr. Traver:

This is to acknowledge your memorandum, dated August 24, and the enclosures relating to the above-docketed application.

Enclosed are copies of memoranda from J. E. Crawford, dated August 10 and 23, and N. E. Nelson, dated August 24, 1955, members of the Uranium Commodity Committee.

We note that the captioned property is land held under a mining lease from the Navajo Tribe. It is doubtful that the Tribal Council will grant an Owner's Consent to Lien. Therefore, in the event the Field Team recommends a project on the subject property, it should advise the Applicant we will require either a Performance Bond or a suitable guarantee from a third party.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosures

APPROVED:

P. F. Yopes (JHB)
Member, Bureau of Mines

(S) N. E. Nelson
Member, Geological Survey (JHB)

FMurphy:am
8-31-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5222
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Murphy

R.A.B.

Surname 700
Murphy
Ellis
Nelson
Yost
Selfridge

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

SEP - 2 1955

Mr. George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico

Re: Docket No. DMEA-1933 (Uranium)
Simpson No. 1 Plot
Apache County, Arizona

Dear Mr. Simpson:

The application for assistance in exploring the subject property under the captioned docket number has been reviewed by the Rare and Miscellaneous Metals Division.

The DMEA Field Team, Region III, Mr. W. M. Traver, Executive Officer, 224 New Customhouse Building, Denver 2, Colorado, will schedule a field examination of your property, if it has not already done so.

Any assistance you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Murphy:am
8-31-55
cc to: Admr. Reading File
Docket
Code 700
Mr. Murphy
DMEA Field Team, Region III(2)

R.C.G.

Sec. Opr. Comm. (2)

RECEIVED
AUG 31 1955

August 25, 1955

Memorandum

To: John F. Shaw

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 3933 (Uranium), George R. Simpson, Navajo Tribe Lease, Apache County, Arizona

The subject application in the amount of $32,044.00 is attached. The brochure consists of:

1. Form MF-103 and extension sheets
2. Drill hole logs
3. Three maps
4. Copy of Executive Officer's memo dated August 23 transmitting the application to this office

Your attention is directed to the fact that the address given by George R. Simpson, the applicant, is identical with the address given by the Capitol Uranium Company, Docket DMEA 3927, namely, 803 W. Main St., Box 1847, Farmington, New Mexico.

A field examination and suitable report are required. The completed report should be sent direct to the Executive Officer with a copy of the memorandum of transmittal to this office.

W. H. KING

W. H. King

Enclosures

Copy to: E. N. Harshman
W. M. Traver (3)

RECEIVED

AUG 31 1955

Sec. Opr. Comm. (2) ✓

August 25, 1955

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From: Superintendent, Denver Experiment Station, Reg. III

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W. H. KING

W. H. King

Enclosures

Copy to: E. N. Harshman
W. M. Traver (3)

8/25/55 Zla

IN REPLY REFER TO:

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

August 24, 1955

Re: DMEA 3933
George R. Simpson
Simpson #1 Plot
Navajo Indian Reservation
Apache Co., Arizona
$13,164.00 - Uranium

Memorandum

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

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

Subject: Review of application.

The original application under #3933 asked for aid in drilling 440 holes, aggregating 52,800 feet, for the purpose of extending, if possible, three areas where drilling has shown uranium mineralization. The three areas, designated A, B, and C, are in the southern part of the Simpson #1 Plot. The northern part of the Plot is the subject of an application by Capitol Uranium Co., DMEA 3927.

Maps submitted under #3933 are not in agreement, inasmuch as the numbers of AEC Plots #1 and #2 are reversed, on the Simpson #1 Plot map and the Drill Hole maps, North and South Ends.

In a letter dated August 8, 1955 (Wiley to Traver) the drilling program is reduced to 16,800 feet of drilling in 2 phases. Phase 1 calls for 9,600 feet, whereas only 60 holes at 120 feet each or 7,200 feet are mentioned. Probably 80 holes at 120 feet each are meant since a 600-foot line with 200-foot spacing calls for 4 holes and 20 lines would mean 80 holes. No layout is given so it is not known how the holes would be apportioned among the three areas.

Area "B" has been well drilled but an east-west trend appears possible, based on two mined areas. Prospect holes along a rim and the drilling in areas 'A' and 'C', 700 feet apart, suggest an east-west trend.

Part of 'B' Block, as stated by the applicant, is being mined and mining is in progress near 'A.' Probably the drilling proposed is warranted, since it will be on trends.

Appraisal by the field is indicated and hereby recommended. The same recommendation will be given DMEA 3927 and, in case field work is involved, the two examinations may be made at one time.

N. E. Nelson

N. E. Nelson

Appraisal by the field is indicated and hereby recommended. The same recommendation will be given DMEA 3987 and, in case field work is involved, the two examinations may be made at one time.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-8/24/55

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

IN REPLY REFER TO:

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

August 24, 1955

Re: DMEA 3933
George R. Simpson
Simpson #1 Plot
Navajo Indian Reservation
Apache Co., Arizona
$13,164.00 - Uranium

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8/30/55 gla

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

RECEIVED
AUG 29 1955

August 24, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Appraisal relative to necessity for a field examination. Docket DMEA 3933, (Uranium), George R. Simpson, Simpson No. 1 Plot, Apache County, Arizona

Enclosed are four copies of a memorandum report on the subject docket from the Grand Junction office.

A field examination is indicated and the Bureau of Mines brochure has been sent to the engineer.

The date of examination will be scheduled as soon as possible.

W. M. Traver

W. M. Traver

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Colorado Plateau District
P. O. Box 360
Grand Junction, Colorado

August 22, 1955

Memorandum

To: Executive Officer, Region III

Through: E. N. Harshman

RECEIVED
AUG 29 1955

From: J. William Hasler, USGS
M. H. Salsbury, USBM

Subject: Appraisal relative to necessity for a field examination. DMEA-3933 (Uranium) George R. Simpson, Simpson No. 1 Plot, Apache County, Arizona.

(See review of DMEA application 3927, Capitol Uranium Company, which is as follows:

The applicant has applied for a DMEA loan in the amount of $161,090.00 to explore for uranium on the George R. Simpson No. 1 Plot, Lukachukai Mountain, Navajo Indian Reservation, Mining District 12, Apache County, Arizona. There is an apparent conflict between the George R. Simpson application (DMEA 3933) and the Capitol Uranium Company, as they both appear to be working on the Simpson No. 1 Plot, Navajo Tribal permit. As the occurrence of high-grade uranium ore has been reported from Atomic Energy Commission exploration drilling, it is concluded that the application should be examined in the field. The examination date will be scheduled as soon as possible.

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

August 24, 1955

224 New Customhouse
Denver 2, Colorado

RECEIVED
AUG 30 1955

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Appraisal relative to necessity for a field examination. Docket DMEA 3933, (Uranium), George R. Simpson, Simpson No. 1 Plot, Apache County, Arizona

Enclosed are four copies of a memorandum report on the subject docket from the Grand Junction office.

A field examination is indicated and the Bureau of Mines brochure has been sent to the engineer.

The date of examination will be scheduled as soon as possible.

W. M. Traver

W. M. Traver

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Colorado Plateau District
P. O. Box 360
Grand Junction, Colorado

August 22, 1955

Memorandum

To: Executive Officer, Region III

Through: E. N. Harshman

From: J. William Hasler, USGS
M. H. Salsbury, USBM

Subject: Appraisal relative to necessity for a field examination. DMEA-3933 (Uranium) George R. Simpson, Simpson No. 1 Plot, Apache County, Arizona.

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

August 23, 1955

224 New Customhouse
Denver, Colorado

Memorandum

To: W. H. King

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3933 (Uranium), George R. Simpson, Navajo Tribe Lease, Apache County, Arizona

Enclosed is the subject application in the amount of $32,044.00.

The application consists of Form MF-103 and accompanying answer sheets, drill hole logs, and three maps.

W. M. Traver

W. M. Traver

Enclosure

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

August 23, 1955

224 New Customhouse
Denver, Colorado

Memorandum

To: W. H. King

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3933 (Uranium), George R. Simpson, Navajo Tribe Lease, Apache County, Arizona

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The application consists of Form MF-103 and accompanying answer sheets, drill hole logs, and three maps.

W. M. Traver

Enclosure

8/24/55 gla

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

August 23, 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: Supplemental information and amendment to original application, DMEA Docket 3933, George R. Simpson, Simpson No. 1, Apache County, Arizona

Mr. Joseph O. Hosted, Washington representative of the Atomic Energy Commission and I have reviewed the additional information, George R. Simpson, DMEA Docket 3933. While the additional data provided by George R. Simpson does clarify the original application, a map showing the location of the proposed drill holes in relation to holes previously drilled is required to fully evaluate the proposed project.

The revised drilling program indicated in the attached information is much more favorable than that requested in the original application. Holes were to be spaced at 50-foot and 12½-foot centers as indicated in the application, and the amendment calls for holes on 200-foot and 100-foot centers. The latter spacing may well represent exploratory work, but the former would have been developmental.

John E. Crawford

John E. Crawford

Attachment

RECEIVED
AUG 24 1955

8/11/55 gla

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

August 10, 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: Application for assistance, DMEA Docket 3933, George R. Simpson, Simpson No. 1, Apache County, Arizona

I have reviewed the attached application, George R. Simpson, DMEA Docket 3933; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The application cannot be properly evaluated because of the lack of information about (1) the geology of the area, (2) proposed exploration program relative to mineralization, (3) drill logs of holes previously drilled on subject claims, and (4) related maps.

We note, however, that according to the DMEA Field Team's memorandum of July 11, 1955, to Messrs, Wilson, Osterstock, Halser, and Shaw, that Mr. Warren E. Wiley, Secretary, Capitol Uranium Company, has been requested by the Field Team to submit additional pertinent data on behalf of the applicant.

The copy of the mining permit on the Navajo Tribal Lands was not received with the copies of the application forwarded to this office.

The spacing of the wagon drill holes on 50-foot centers in phase I, and on 12½-foot centers in phase II, is indicative of a development program rather than an exploration program, and I would be opposed to it.

Should additional data supplied by the applicant, and copies of the data indicated as having been retained by the Grand Junction Field Office, be supplied to the Bureau Commodity Committee member, a complete evaluation of the application could be made.

RECEIVED
AUG 11 1955

Mr. Hosted agrees that the spacing of drill holes as proposed by the applicant indicates development work, and he also requires substantiating maps and information about the geology of the property before a decision can be made as to the merits of the application.

John E Crawford

John E. Crawford

Attachment

RECEIVED
AUG 1 1 1955

8/12/55 gla

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

224 New Customhouse
Denver 2, Colorado

August 9, 1955

Memorandum

To: Chairman of the Operating Committee

RECEIVED
AUG 12 1955

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3933 (Uranium), George R. Simpson, Simpson No. 1, Apache County, Arizona

Enclosed are two copies of additional information received from the applicant.

1. Letter from the applicant, dated August 8, 1955.
2. Drill hole map -- north end Simpson No. 1.
3. Drill hole map -- south end Simpson No. 1 Plot.
4. Drilling results, Simpson No. 1, North Carrizo.
5. Simpson No. 1 Plot, Navajo Reservation, District No. 9.

One copy of the above information is being forwarded to the Grand Junction office.

W. M. Traver

Enclosures

W. M. Traver

8/12/55 gla

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

RECEIVED
AUG 12 1955

224 New Customhouse
Denver 2, Colorado

August 9, 1955

Mr. Warren E. Wiley, Secretary
Capitol Uranium Company
Farmington, New Mexico

Re: DMEA-3933

Dear Sir:

This will acknowledge receipt of the following:

1. Four copies of your letter, dated August 8, 1955.

2. Three copies drill hole map -- north end Simpson No. 1.

3. Three copies drill hole map -- south end Simpson No. 1 Plot.

4. Three copies drilling results, Simpson No. 1, North Carrizo.

5. Three copies Simpson No. 1 Plot, Navajo Reservation District No. 9.

Will you please furnish one more copy of the above information so that we may continue to process your application.

Very truly yours,

W. M. TRAVER,

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

HMC:pw

cc: Subject
Chron
Connors
Harshman
Sec.Op.Comm. (2)

DMEA
Date Rec'd.
AUG 9 1955
BUREAU OF MINES
Denver, Colorado

August 8, 1955

RECEIVED
AUG 12 1955

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

Re: George R. Simpson
803 W. Main, Box 1947
Farmington, New Mexico
Docket No. DMEA 3933

#3933 fee $33,044
refund $13,164.00

Dear Mr. Traver:

We are attaching herewith the additional maps and the drill hole logs for the George R. Simpson application as requested in your letter of July 28, 1955.

We wish to raxise the drilling project and the following should be considered instead of Part 5(b) of the original application.

In the AEC publication by Stokes and others, it has been pointed out that the ancient stream channels in the Salt Wash Member of the Morrison Formation tend to be very uniformly East-West in course. This has been born out in mining experience, as demonstrated by the ore now being mined in the vicinity of drill holes A1 to A23, which we call block A, and the ore recently drilled in the vicinity of drill holes C1 to C72, which we call block C.

North & West

Again, at the portal of the tunnel on AEC Plot 1, in the area mined previously, and then the ore to the West of this shown in holes S1 to S36, and the ore further West of this in holes S90 to S128, which are all in block B and is now being mined.

The ores found in Block A, B and C, have been found to be commercial, and to extend the ore bodies the following project is proposed. Phase one of the project would consist of 20 lines of holes 600 feet long, with the holes on 200 foot centers in each line, or 60 holes to be drilled an average of 120 feet deep, or a grand total of 9600 feet of drill hole. Phase two would consist of offset holes on 100 foot centers between any two holes which show mineralization or geologic reasons for further work. This would a total of 60 holes, or 7200 feet of drilling.

The cost of Phase one would be $4608.00 based on 48

George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico
Docket No. DMEA 3933

foot of drilling, the cost to date. Phase two would cost $3456.00 if completed, although if ore was not encountered in Phase one, no part of Phase two would be drilled.

The work would start within 30 days and be completed within four months.

SUMMARY

Wagon drilling, Phase One	$ 4608.00
Wagon drilling, Phase Two	3456.00
Bulldozer, 50 hours plus moving time	900.00
Supervision, 4 months at $400.00(half time)	1600.00
Engineering, 4 days at $200.00	800.00
Consulting Geologist, 6 days at $120.00	720.00
Analytical work	280.00
Accounting, 4 months at $200.00	$ 1,800.00
	$ 13164.00

Very truly yours,
CAPITOL URANIUM COMPANY

Warren E. Wiley
Secretary

Enclosures

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

RECEIVED
AUG 12 1955

224 New Customhouse
Denver 2, Colorado

August 9, 1955

Memorandum

To: Chairman of the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3933 (Uranium), George R. Simpson, Simpson No. 1, Apache County, Arizona

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5. Simpson No. 1 Plot, Navajo Reservation, District No. 9.

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W. M. TRAVER,

W. M. Traver

Enclosures

RECEIVED
AUG 8 3 1955

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

Denver 2, Colorado

August 9, 1955

Mr. Warren E. Wiley, Secretary
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Farmington, New Mexico

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W. M. TRAVER,

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

HMC:pw

cc: Subject
Chron
Connors
Harshman
Sec.Op.Comm. (2)

RECEIVED
AUG 12 1955

DMEA
Date Rec'd.

AUG 9 1955

BUREAU OF MINES
Denver, Colorado

August 8, 1955

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

RECEIVED
AUG 12 1955

Re: George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico
Docket No. DMEA 3933

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George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico
Docket No. DMEA 3933

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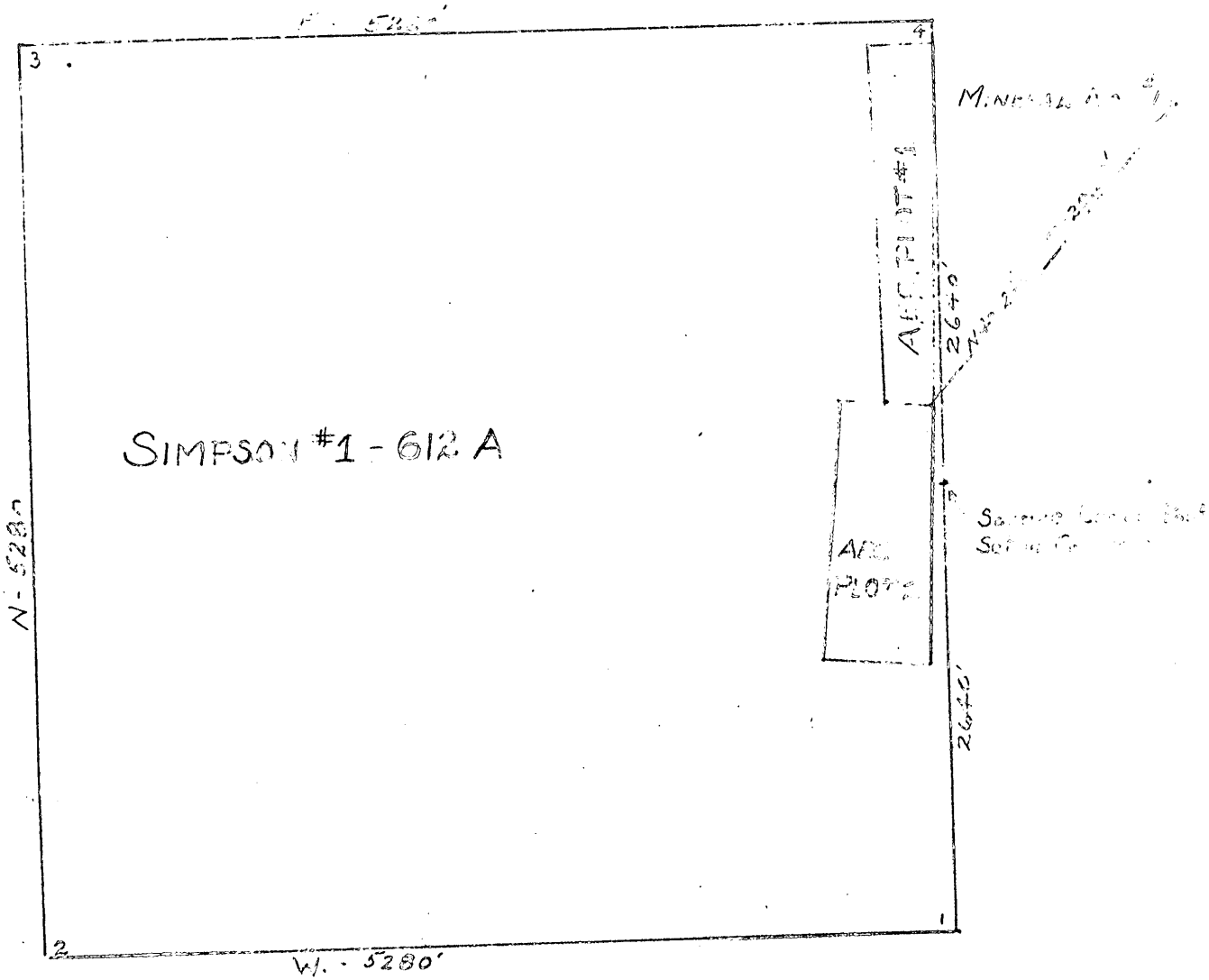
	$ 13164.00

Very truly yours,
CAPITOL URANIUM COMPANY

Warren E. Wiley

Warren E. Wiley
Secretary

Enclosures



SIMPSON #1 PLOT
NAVAJO RESERVATION - DIST. #9
A[illegible] CO., ARIZ
SCALE 1" = 1000'

August 2, 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-3933 George R. Simpson

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

August 2, 1955
Subject: DMEA-3933
Re: Exploration Assistance
Simpson #1

George R. Simpson
803 W. Main
Box 1847
Farmington, N. Mex.

Dear Mr. Simpson:

The receipt of your application dated June 23, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3933 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

60932

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

RECEIVED
AUG - 1 1955

224 New Customhouse
Denver, Colorado

July 28, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA aid (Uranium), George R. Simpson, Simpson No. 1, Apache County, Arizona

Enclosed are two copies of the subject application and two copies of our letter to the applicant requesting additional information. One copy of the application is being forwarded to J. W. Hasler at the Grand Junction Field Office with three copies of the only maps included with the application. The copy of the mining permit on the Navajo Tribal Lands is included with your copies of the application. One copy of the application is being retained in our file.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
AUG - 1 1955

224 New Customhouse
Denver, Colorado

July 28, 1955

Mr. Warren E. Wiley, Secretary
Capitol Uranium Company
Box 1847
Farmington, New Mexico

Dear Mr.Wiley:

This will acknowledge receipt of four copies of the application for George R.Simpson on the Simpson No. 1 property in Apache County, Arizona.

The location notices you mentioned in your letter of July 27, which enclosed three copies of the application, were not received with the first copy of the application. Only three maps and a copy of the mining permit accompanied the first copy of the application. Please forward three more copies of each map which we will include with the other three copies of the application.

It is noted that your proposed Phase I consists of 20 lines of wagon drill holes on 50' centers and your proposed Phase II consists of offset drilling of mineralized holes found in Phase I on 12-½' centers. Drilling at this close spacing is not within the scope and intent of "Exploration" as defined in Section 2 of the attached DMEA Order 1. Wider spaced drilling in each phase of the proposed exploration would be given consideration.

Will you please furnish the drill logs of holes previously drilled on your property. The location of any samples taken and assay results would also be helpful. Any other geologic information that would assist in determining the merits of the proposed exploration work should also be included. If this information can be furnished by you, will you please submit four copies.

Returned herewith is your self-addressed, stamped envelope.

HMC:dja
cc: Chman.Op.Comm.(2)
Hasler
Harshman
Subject Chron
Enclosure

Very truly yours,

W. M. Traver

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1038.2.

DMEA
Date Rec'd
JUL 27 1955

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

RECEIVED
AUG - 1 1955

Not to be filled in by applicant

BUREAU OF MINES
Denver, Colorado

Docket No. 3733
Metal or Mineral Uranium
Date Received 8-1-55
Estimated Cost $32,044
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: George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico

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

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

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

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

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

(*b*) State any mine name by which the property is known. Simpson # 1

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise
Mining lease from the Navajo Tribe

(*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 attached

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

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

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

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

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

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

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

16—66551-1

See attached

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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 June 23, 1955

George R. Simpson
(Applicant)

By George R. Simpson

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

Simpson # 1

George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico

4 (a) The workings shown on the attached map have been carried out for the applicant by the Capitol Uranium Company, acting as my agent, and the project proposed herein would be done by them as contractors and agent of the applicant.
All the workings and drill holes have been carried out from the planning stage to mining of the ore by the contractor company. Work has been completed on the A. E. C. # 1 Plot, and is now in progress on Block "B", which is worked through the same portal. Block "A" is also active, but Block "C" has not yet progressed beyond proving the ore reserve by drilling, which has just been completed. All underground workings are completely, accessible at all times, except just after a blast. the ventilation is good, and permits return to the face within a few minutes after blasting.

4 (b) The area worked in A. E. C. Plot # 1 produced 1028 tons which averaged 0.261% U_3O_8, 1.94% V_2O_5 and 7.4% $CaCO_3$. The area to the West of this, which is known as Block "B", is now approximately half mined out. The original reserves for this block were 622 tons of 0.416% U_3O_8, or a gross value of $42,078.30 including initial production bonus and haulage allowances, but not including payment for Vanadium or allowance for lime penalties. Block "C" reserves contain 648 tons of 0.418% U_3O_8 or a gross value of $43,837.20 including initial production bonus and haulage allowance, but not including payment for Vanadium or allowance for lime penalties. Block "A" is nearly completed and has produced 200 dry tons of 0.29% U_3O_8, 1.88% V_2O_5 and 7.78% $CaCO_3$.

4 (c) The mineralization in the Simpson # 1 plot is found in the Salt Wash member of the Morrison formation. It is mostly carnotite with some dark mineral throught to be Uraninite.

4 (d) The property is readily accessible, and generally does not require drill roads. It may be noted that all drilling to date has been done without roads. There is a fair dirt road from the mine to the main road connecting Shiprock and Monument Valley. From the mine to the Kerr-McGee mill at Shiprock, it is 48 miles and to the Vanadium Corporation of America mill at Durango, it is 128 miles. Supplies are obtained in Farmington, New Mexico, Durango or Denver, Colorado. The mine supervisors are housed in trailers at the mine and the other employees are Navajo Indians, who reside in the neighborhood. It should be noted that they have proven to be excellent workers and quickly acquire the necessary skills.

4 (e) There is a plentiful supply of manpower. All materials and supplies are brought to the mine in the company Jeep pickups or as back-haul freight by the ore trucks. Mining equipment can be obtained in Denver, Grand Junction or Durango, Colorado, and over night service is provided by the truck lines.
Domestic and drilling water is obtained from wells 8 miles from the property.
There is no power on this portion of the Reservation.

Simpson # 1

George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico

5 (a) The project will consist of wagon drilling for additional ore bodies.
The ore bodies sought are Uranium-Vanadium bearing sandstones.

5 (b) The project to wagon drill for additional ore bodies is divided into two phases. Phase one would consist of 20 lines of holes averaging 500 feet long, with holes on 50 foot centers on each line, or 220 holes to be drilled an average of 120 feet deep, or a grand total of 26,400 feet of drill hole. At 48 cents per foot, the cost would be $12,672.00.
Phase two would consist of drilling holes on 12½ foot centers offsetting holes which show mineralization. This has averaged an equal footage to date, therefore, for Phase two the cost would be 26,400 feet of drilling at 48 cents per foot or $12,672.00. Only those holes which show mineralization would be offset so that if none is encountered in Phase one, then no part of Phase two would be carried out.

5 (c) The work will start within 30 days and be completed in 10 months from the date of an exploration contract.

5 (d) The applicant has been mining coal at Hogback for several years and the Capitol Uranium Company has been actively drilling and prospecting for Uranium ores since its organization in October of 1953. In its earlier stages the work was directed by Forest John Sur, and engineer of wide experience, and superintended by William Gianetto of Silverton, Colorado, a practical mining man considered to be one of the best in the San Juan District. Mr. Sur has now resigned and the company expects to employ Mr. Frank MacPherson of Grand Junction, Colorado, as consultant on geological problems. The operations and drilling will be supervised by Walter W. Bentley who has supervised the drilling for the past 15 months. He has had more than 30 years of experience in the field of mining, most of it with the Anaconda Copper Mining Company, American Smelting and Refining Company as well as more than 4 years during World War II in the Bureau of Mines as an Explosives Investigator. The Foremen in immediate charge of mining are Marshall J. Fletcher, for many years shift foreman at the Shenandoah-Dives mine at Silverton, Colorado, and Ward R. Barlow, who has many years experience as an operator of leased properties.

6 (a) It is planned to use the incumbent independent contractors for the drilling. Bulldozing will cost $12.00 per hour plus $300.00 for moving in and out. Wagon drilling will cost 48 cents per foot, based upon 35,000 feet drilled in this area.

6 (b) Supervision:
General Supervisor, half time at $800.00 per month
Engineering:
Surveying, $200.00 per day for party
Consultant:
Geologist, $100.00 per day pkus expenses

6 (c) Operating materials and supplies - none.

Simpson # 1

George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico

6 (d) Wagon drill to be furnished by the company, is mounted on a 6 x 6 truck, with LeRoi 365 CFM compressor, Gardner Denver D89B Leyner, 20 foot mast, using 18 foot change 1¼" round lugged steel, and type A carbide inserted bits, cyclone sample collector and pneumatic bit grinder.

6 (e) No repaors required.

6 (f) New buildings - None

6 (g) Cost of repairs to equipment - None

Analytical work - 40 samples at $7.00	$ 280.00
Accounting - 10 months at $200.00	2000.00

6 (h) Contingencies - None

7 (a) The applicant is prepared to furnish his share of the cost of the proposed project in cash.

SUMMARY

Wagon Drilling Phase One	$ 12672.00
Wagon Drilling Phase Two	12672.00
Bulldozing, 50 hours plus moving	900.00
Supervision, 10 months at $400.00 (half time)	4000.00
Engineering, 4 days at $200.00	800.00
Consultant Geologist, 6 days at $120.00	720.00
Analytical Work	280.00
Accounting	2000.00
	$ 32044.00

Capitol [illegible] Company
803 W. Main [illegible] Box 1847
Farmington, N. M.

GEORGE SIMPSON MINING PERMIT NO. 48 -

SIMPSON NO. 1 TRACT:

Beginning at Corner No. 1, Southeast corner, from whence a squared wood post, believed to be the SE Corner of the old Manhattan Project lease to VGA, bears northerly about 2640 feet and from whence a knoll topped by an old rock monument believed to be old, [illegible] No. 1 bears about N 45 E one and three-fourths miles, thence westerly about 5280 feet to Corner No. 2, the southwest Corner, thence northerly about 5280 feet to Corner No. 3, the northwest Corner, thence easterly about 5280 feet to Corner No. 4, the northeast Corner, thence southerly about 5280 feet to Corner No. 1, the point of beginning. This claim to be called Simpson No. 1 and located in District 9, Navajo Indian Reservation, Apache County, Arizona.

USMM

This tract is further delineated in that any included parts of the Sells Permits on Saytah and Saytah Extension claims and the Manhattan project lease to VGA are specifically excluded from the above claim, but that any and all ground lying along the rim as well as to the south and west away from the rim and not held in such excluded claims is specifically claimed in the Simpson No. 1 tract. This Simpson No. 1 Tract contains about 600 acres, more or less.

Subject to disputes and corrected survey wherever necessary.

Simpson # 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
WINDOW ROCK AREA OFFICE
WINDOW ROCK, ARIZONA

Permit No. [illegible]

MINING PERMIT--NAVAJO TRIBAL LANDS

Pursuant to authority granted by the Advisory Committee of the Navajo Tribal Council by Resolution No. ACS-80-51 dated September 19, 1951, as amended by Resolution ACF-4-52 dated February 12, 1952 and ACM-5-52 dated March 11, 1952, permission is hereby granted to:

George R. Simpson, 514 North Wall Street, Farmington, New Mexico;

Census No. 32932, a Navajo Indian, of Farmington, New Mexico, to prospect for, mine and remove minerals from tribal lands of the Navajo Indian Reservation, in the County of Apache, State of Arizona and described as follows:

SEE LEGAL DESCRIPTION ATTACHED.

for the full term of two years from date of approval hereof, for the sole purpose of prospecting for and mining of minerals as follows:

Uranium bearing ores

The Permittee to occupy so much of the surface of said land as may be reasonably necessary to carry on the work of prospecting for, mining, storing, and removing such minerals, and to construct such access roads as are necessary in proper development of the property.

PROVIDED, however, that any Navajo who conducts development operations under a permit may at his option apply for a lease before the expiration of the two year period, or at the expiration of the two year period he may apply for an extension of his permit for an additional two year term, and the Advisory Committee may approve any such application if in its opinion the applicant has worked and is continuing to work in good faith in the development of the mining operation.

1. In consideration of the foregoing, the Permitee hereby agrees:

(a) Royalties: The royalties payable to the Navajo Tribe on all permits and leases issued under the provisions hereof shall be as follows:

Simpson # 1

Capitol Uranium Company
803 W. Main P. O. Box 1847
Farmington, N. M.

Percentage Royalty Schedule

Mine Value Per Dry Ton	Royalty Percentage of Mine Value Per Dry Ton
$ 0.01 to $ 10.01	10%
$ 10.01 to $ 20.01	11%
$ 20.01 to $ 30.01	12%
$ 30.01 to $ 40.01	13%
$ 40.01 to $ 50.01	14%
$ 50.01 to $ 60.01	15%
$ 60.01 to $ 70.01	16%
$ 70.01 to $ 80.01	17%
$ 80.01 to $ 90.01	18%
$ 90.01 to $100.01	19%
$100.01 or more.	20%

"MINE VALUE PER DRY TON", wherever used herein is hereby defined as the dollar value per dry ton of crude ores at the mine as paid for by the Atomic Energy Commission or other government authorized agency before allowance for transportation and development; however, if the government at any time hereafter does not establish and pay for said ores on a fixed or scheduled dollar value per dry ton of crude ores at the mine, or said ores contain saleable minerals, some, or all, of which are disposed of to a custom treatment plant or smelter for treatment and sale, then mine value per dry ton shall be the gross value per dry ton of said crude ore as paid for by the Atomic Energy Commission or other Government authorized agency mill or other buyer, less any allowances or reimbursements for the following specific items: (1) transportation of ores; (2) allowances for exploration for, or development of ores; and (3) treatment or beneficiation of ores; which specific items shall in such event be deducted from the gross sales price received from the metal content of said ores by the seller before said percentage royalty is calculated and paid. Such payments shall be made on or before the fifteenth (15th) day of the month next following receipt by Lessee of payment for said ores together with a statement of the mine value of said ores and the amount of royalty due on each lot shipped and sold.

Whenever minerals or other products are recovered which are not included in determining mine value per dry ton as defined herein there shall be paid to the Tribe for such minerals or other products, a royalty of ten (10) per cent of the gross value of such products.

BONUSES: There shall be paid, as additional royalty, 10% of any bonus paid by the United States Atomic Energy Commission for the production of ore and particularly, bonuses for the initial production of uranium ore from said lease. This provision shall not be limited to bonuses for initial production but shall apply to any and all bonuses paid for the production of ore.

PAYMENT OF ROYALTIES: Remittances for tribal royalties are to be made payable to the Treasurer of the United States and mailed to Window Rock, Arizona, for deposit to Navajo Tribal Funds.

(b) DILIGENCE, PREVENTION OF WASTE. To exercise diligence in the conduct of prospecting and mining operations; to carry on development and operations in a workmanlike manner and to the fullest possible extent; to commit no waste on the said land and to suffer none to be committed upon the portion in his occupancy; to comply with all the requirements of the

Capitol Business Company
803 W. Main Phone 1847
Farmington, N. M.

laws of the State in which the land is located; to take appropriate steps for the preservation of the property and the health and safety of workmen; promptly to surrender and return the premises upon the termination of this permit to whomsoever shall be lawfully entitled thereto, in as good condition as received, excepting for the ordinary wear and tear and unavoidable accidents in their proper use; all buildings and improvements shall remain the property of the permittee and may be removed at any time prior to 60 days after the termination of the permit by forfeiture or otherwise, provided, the payments agreed upon by this permit have been made and the permit terms and regulations applicable thereto have been fully complied with, but not otherwise; not to permit any nuisance to be maintained on the premises under permittee's control, nor allow intoxicating liquors to be sold or given away for any purpose on such premises; and not to use such premises for any other purposes than those authorized in this permit.

(c) DEVELOPMENT. The land described herein shall not be held by the permittee for speculative purposes, but in good faith for mining the minerals specified; and the failure by the permittee in the diligent development and continued operation of the mine or mines, except when operations may be interrupted by strikes, the elements, or casualties not attributable to the permittee, shall be held as a want of compliance with the purposes of this permit and shall render it subject to revocation at the discretion of the Area Director; provided, that whenever the Area Director shall consider the marketing facilities inadequate or the economic conditions unsatisfactory, he may authorize the suspension of operations for such time as he may deem advisable. On mining permits operated exclusively by Navajos there shall be expended by the permittee the equivalent of $5.00 per acre per year in actual mining development. Such development shall consist of road building, prospecting or drilling and mining operations. Where assignments or other agreements are made to non-Indians the development requirement shall be $10.00 per acre per year. Certified reports shall be submitted to the Window Rock Area Office regarding development expenditures within ten days after the yearly anniversary date of the contracts.

(d) MONTHLY STATEMENTS. To keep an accurate account of all mining operations, showing the sales, prices, dates, purchasers, and the whole amount of minerals mined, the amount removed, and the gross receipts derived therefrom, and to furnish the Area Director sworn monthly reports thereon not later than the 25th of the succeeding month; and all sums due as royalty shall be a lien on all implements, tools, removable machinery, and all other personal chattels used in operations upon said property, and upon all of the unsold minerals obtained from the land herein, as security for payment of said sums.

(e) REGULATIONS. To abide by and conform to any and all regulations of the Secretary of the Interior now or hereafter in force relative to such permits; provided, that no regulations hereafter approved shall effect a change in rate of royalty, or the term of this permit, without written consent of the parties of this permit.

(f) ASSIGNMENT OF PERMIT. Not to assign this permit or any interest therein by an operating agreement or otherwise nor to sublet any portion of the premises without approval of the Advisory Committee and the Secretary of the Interior, or his authorized representative.

Capitol [illegible] Company
803 W. M[illegible] [illegible] Box 1847
Farmingto[illegible] N. M.

OVER-RIDING ROYALTIES: Subject to approval provided for in section (f) of this permit, assignments, operating agreements, and sub-contracts may, in addition to other considerations, provide for the retention by and payment to the assignor in an assignment, or the grantor in a sub-contract or operating agreement, or a royalty on all ore produced and sold from the premises (commonly known as an over-riding royalty) of not to exceed the following percentage based on the mine value per dry ton of ore as defined on pages one and two of this permit, to-wit:

1. On ore having a mine value per dry ton of $30.00 or less, 2% of the mine value per dry ton.

2. On ore having a mine value per dry ton of more than $30.00 and not more than $60.00, 3% of the mine value per dry ton.

3. On ore having a mine value per dry ton of more than $60.00 and not more than $80.00, 4% of the mine value per dry ton.

4. On ore having a mine value per dry ton of more than $80.00, 5% of the mine value per dry ton.

If two or more parties are the assignors or grantors, the royalty may be divided on such basis as said assignors or grantors may agree upon; provided, however, that the Advisory Committee of the Navajo Tribal Council may at any time after five (5) years from the date of the first sale of uranium ore produced from said property (as evidenced by records of the processing mill or other buyer) reduce the percentage of royalty retained by the assignor or grantor or entirely eliminate the same if the Advisory Committee shall determine that such royalty payments so retained are so burdensome as to make the future operation of the mines on said lease impracticable or unprofitable, it being the intent hereof that the Advisory Committee shall at such time take such action as will serve the best interest of the Navajo Tribe in assuring the continuous operation of the uranium mining industry on the Navajo Reservation.

(g) RENTAL. Where permits or leases are assigned or interests are otherwise acquired by non-Indians an advance annual rental of $1.00 per acre is required and no credit shall be allowed therefor on any future production royalties.

(h) BOND: All non-Indian contracts shall require a surety bond to insure performance of the terms of the contract. The amount of bond to conform to Departmental Mining Regulations.

2. INSPECTION. The permitted premises and producing operations, improvements, machinery and fixtures thereon and connected therewith shall be open at all times for inspection by the Area Director or his authorized representative.

3. SURRENDER AND TERMINATION. The permittee shall have the right at any time during the term hereof to surrender and terminate this permit or any part thereof upon the payment of all royalties due the Navajo Tribe, and any other obligations that may be due the Navajo Tribe; provided, that the permittee has complied with all instructions regarding conservation and protection of the property.

Capitol Uranium Company
303 W. Main - P. O. Box 1847
Farmington, N. M.

4. CANCELLATION AND FORFEITURE. When, in the opinion of the Area Director, there has been a violation of any of the terms and conditions of this permit, the Area Director shall have the right at any time after 30 days notice to the permittee, specifying the terms and conditions violated, and after a hearing, if the permittee shall so request within 30 days of receipt of notice, to declare this permit null and void, and if any royalties or other obligations are due the Navajo Tribe, to take appropriate action to see that such obligations are fulfilled.

5. MINES TRIBUTARY TO URANIUM PROCESSING MILL AT SHIPROCK, NEW MEXICO. Permittee or Lessee and any assignee of the Permittee or Lessee shall tender all uranium ores produced by them from mines tributary to the mill of the Navajo Uranium Company at Shiprock, New Mexico, to the Navajo Uranium Company for purchase at such price or prices as may be established or approved by the U. S. Atomic Energy Commission, including allowances for transportation and development work, provided, that when there has been purchased for the use of said mill or stock-pile according to the provisions of said lease, a quantity of ore sufficient to supply said mill with its normal ore requirements, the Navajo Uranium Company shall notify each permittee or lessee that the provisions of this paragraph are waived until further notice. The provisions of this paragraph shall not remain in force and effect for a period of more than five (5) years from the date of the approval by the Secretary of the Interior of the lease to the Navajo Uranium Company for the millsite at Shiprock, New Mexico.

Approval Recommended

Date July 8, 1952

Sam Ahkeah
Chairman, Navajo Tribal Council

John G. Selaw
Vice-Chairman, Navajo Tribal Council

I hereby accept the foregoing permit and agree to abide by all its terms and conditions.

George R. Simpson
(Permittee)

(Permittee)

Lorie Gaussoin
CHOSE

Approved: 8-6-52
(Date)

Acting Area Director

Crawford

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

RECEIVED
AUG - 1 1955

224 New Customhouse
Denver, Colorado

July 28, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA aid (Uranium), George R. Simpson, Simpson No. 1, Apache County, Arizona DMEA-3933

Enclosed are two copies of the subject application and two copies of our letter to the applicant requesting additional information. One copy of the application is being forwarded to J. W. Hasler at the Grand Junction Field Office with three copies of the only maps included with the application. The copy of the mining permit on the Navajo Tribal Lands is included with your copies of the application. One copy of the application is being retained in our file.

W. M. Traver

W. M. Traver

Enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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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: George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico

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

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

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

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

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

See attached

(*b*) State any mine name by which the property is known. Simpson # 1

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

Mining lease from the Navajo Tribe

(*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 attached

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

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

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

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

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

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

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

16—66551-1

See attached

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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 June 23, 195 5

George R. Simpson
(Applicant)

By George R. Simpson

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

Simpson # 1

George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico

4 (a) The workings shown on the attached map have been carried out for the applicant by the Capitol Uranium Company, acting as my agent, and the project proposed herein would be done by them as contractors and agent of the applicant.
All the workings and drill holes have been carried out from the planning stage to mining of the ore by the contractor company. Work has been completed on the A. E. C. # 1 Plot, and is now in progress on Block "B", which is worked through the same portal. Block "A" is also active, but Block "C" has not yet progressed beyond proving the ore reserve by drilling, which has just been completed. All underground workings are completely, accessible at all times, except just after a blast. the ventilation is good, and permits return to the face within a few minutes after blasting.

4 (b) The area worked in A. E. C. Plot # 1 produced 1028 tons which averaged 0.261% U_3O_8, 1.94% V_2O_5 and 7.4% $CaCO_3$. The area to the West of this, which is known as Block "B", is now approximately half mined out. The original reserves for this block were 622 tons of 0.416% U_3O_8, or a gross value of $42,078.30 including initial production bonus and haulage allowances, but not including payment for Vanadium or allowance for lime penalties. Block "C" reserves contain 648 tons of 0.418% U_3O_8 or a gross value of $43,837.20 including initial production bonus and haulage allowance, but not including payment for Vanadium or allowance for lime penalties. Block "A" is nearly completed and has produced 200 dry tons of 0.29% U_3O_8, 1.88% V_2O_5 and 7.78% $CaCO_3$.

4 (c) The mineralization in the Simpson # 1 plot is found in the Salt Wash member of the Morrison formation. It is mostly carnotite with some dark mineral throught to be Uraninite.

4 (d) The property is readily accessible, and generally does not require drill roads. It may be noted that all drilling to date has been done without roads. There is a fair dirt road from the mine to the main road connecting Shiprock and Monument Valley. From the mine to the Kerr-McGee mill at Shiprock, it is 48 miles and to the Vanadium Corporation of America mill at Durango, it is 128 miles. Supplies are obtained in Farmington, New Mexico, Durango or Denver, Colorado. The mine supervisors are housed in trailers at the mine and the other employees are Navajo Indians, who reside in the neighborhood. It should be noted that they have proven to be excellent workers and quickly acquire the necessary skills.

4 (e) There is a plentiful supply of manpower. All materials and supplies are brought to the mine in the company Jeep pickups or as back-haul freight by the ore trucks. Mining equipment can be obtained in Denver, Grand Junction or Durango, Colorado, and over night service is provided by the truck lines.
Domestic and drilling water is obtained from wells 8 miles from the property.
There is no power on this portion of the Reservation.

Simpson # 1

George R. Simpson
803 W. Main, Box 1847
Farmington, New Mexico

5 (a) The project will consist of wagon drilling for additional ore bodies.
The ore bodies sought are Uranium-Vanadium bearing sandstones.

5 (b) The project to wagon drill for additional ore bodies is divided into two phases. Phase one would consist of 20 lines of holes averaging 500 feet long, with holes on 50 foot centers on each line, or 220 holes to be drilled an average of 120 feet deep, or a grand total of 26,400 feet of drill hole. At 48 cents per foot, the cost would be $12,672.00.
Phase two would consist of drilling holes on 12½ foot centers offsetting holes which show mineralization. This has averaged an equal footage to date, therefore, for Phase two the cost would be 26,400 feet of drilling at 48 cents per foot or $12,672.00. Only those holes which show mineralization would be offset so that if none is encountered in Phase one, then no part of Phase two would be carried out.

5 (c) The work will start within 30 days and be completed in 10 months from the date of an exploration contract.

5 (d) The applicant has been mining coal at Hogback for several years and the Capitol Uranium Company has been actively drilling and prospecting for Uranium ores since its organization in October of 1953. In its earlier stages the work was directed by Forest John Sur, and engineer of wide experience, and superintended by William Gianetto of Silverton, Colorado, a practical mining man considered to be one of the best in the San Juan District. Mr. Sur has now resigned and the company expects to employ Mr. Frank MacPherson of Grand Junction, Colorado, as consultant on geological problems. The operations and drilling will be supervised by Walter W. Bentley who has supervised the drilling for the past 15 months. He has had more than 30 years of experience in the field of mining, most of it with the Anaconda Copper Mining Company, American Smelting and Refining Company as well as more than 4 years during World War II in the Bureau of Mines as an Explosives Investigator. The Foremen in immediate charge of mining are Marshall J. Fletcher, for many years shift foreman at the Shenandoah-Dives mine at Silverton, Colorado, and Ward R. Barlow, who has many years experience as an operator of leased properties.

6 (a) It is planned to use the incumbent independent contractors for the drilling. Bulldozing will cost $12.00 per hour plus $300.00 for moving in and out. Wagon drilling will cost 48 cents per foot, based upon 35,000 feet drilled in this area.

6 (b) Supervision:
General Supervisor, half time at $800.00 per month
Engineering:
Surveying, $200.00 per day for party
Consultant:
Geologist, $100.00 per day plus expenses

6 (c) Operating materials and supplies - none.

Simpson # 1

George H. Simpson
803 W. Main, Box 1847
Farmington, New Mexico

6 (d) Wagon drill to be furnished by the company, is mounted on a 6 x 6 truck, with LeRoi 365 CFM comoressor, Gardner Denver D89B Leyner, 20 foot mast, using 18 foot change 1¼" round lugged steel, and type A carbide inserted bits, cyclone sample collector and pneumatic bit grinder.

6 (e) No repaors required.

6 (f) New buildings - None

6 (g) Cost of repairs to equipment - None

Analytical work - 40 samples at $7.00	$ 280.00
Accounting - 10 months at $200.00	2000.00

6 (h) Contingencies - None

7 (a) The applicant is prepared to furnish his share of the cost of the proposed project in cash.

SUMMARY

Wagon Drilling Phase One	$ 12672.00
Wagon Drilling Phase Two	12672.00
Bulldozing, 50 hours plus moving	900.00
Supervision, 10 months at $400.00 (half time)	4000.00
Engineering, 4 days at $200.00	800.00
Consultant Geologist, 6 days at $120.00	720.00
Analytical work	280.00
Accounting	2000.00
	$ 32044.00

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

RECEIVED
AUG - 1 1955

224 New Customhouse
Denver, Colorado

July 28, 1955

Mr. Warren E. Wiley, Secretary
Capitol Uranium Company
Box 1847
Farmington, New Mexico

Dear Mr.Wiley:

This will acknowledge receipt of four copies of the application for George R.Simpson on the Simpson No. 1 property in Apache County, Arizona.

The location notices you mentioned in your letter of July 27, which enclosed three copies of the application, were not received with the first copy of the application. Only three maps and a copy of the mining permit accompanied the first copy of the application. Please forward three more copies of each map which we will include with the other three copies of the application.

It is noted that your proposed Phase I consists of 20 lines of wagon drill holes on 50' centers and your proposed Phase II consists of offset drilling of mineralized holes found in Phase I on 12-½' centers. Drilling at this close spacing is not within the skope and intent of "Exploration" as defined in Section 2 of the attached DMEA Order 1. Wider spaced drilling in each phase of the proposed exploration would be given consideration.

Will you please furnish the drill logs of holes previously drilled on your property. The location of any samples taken and assay results would also be helpful. Any other geologic information that would assist in determining the merits of the proposed exploration work should also be included. If this information can be furnished by you, will you please submit four copies.

Returned herewith is your self-addressed, stamped envelope.

HMC:dja
cc: Chman.Op.Comm.(2)
Hasler
Harshman
Subject Chron
Enclosure

Very truly yours,

W. M. Traver

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

DRILLING RESULTS SIMPSON # 1 NORTH CARRIZO

DMER-3933

HOLE	DEPTH	ORE THICKNESS	% URANIUM	VANADIUM	REMARKS
B-1	108.4 - 114.8	6.4	0.13	Fair	
	114.8 - 118.6	3.8	0.23	Fair	
2		Less than	.03	-	
3	116.0 - 119.4	3.4	0.14	Good	
4	105.2 - 111.6	6.4	0.14	Good	
	111.6 - 118.8	7.2	0.45	Good	
5		Less than	0.06	-	
6			Blank	-	
7	118.2 - 119.2	1.0	0.16	Poor	
8			Blank	-	
9			Blank	-	
10	116.8 - 117.4	0.6	0.09	Poor	
11			Blank	-	
12			Blank	-	
13			Blank	-	
14			Blank	-	
15			Blank	-	
16			Blank	-	
17			Blank	-	
18			Blank	-	
19	108.0 - 109.0	1.0	0.17	Good	
20	Holed to drift				Ventilation
21	Holed to drift				Holes-all on
22		Blank			VCA Property
23	107.4 - 108.0	0.6	0.12		"
24	115.0 - 115.6	0.6	0.33		"
25	106.8 - 107.4	0.6	0.24		"
26			Blank		"
27			Blank		"
28			Blank		"
29	112.8 - 113.8	1.0	0.15		"
30	99.0 - 109.2	10.2	0.15		"
	109.2 - 114.0	4.8	0.31		"
31	104.6 - 106.6	2.0	0.54		"
	112.0 - 113.8	1.8	0.40		"
32	112.4 - 113.2	0.8	0.15		"
33			Blank		
34			Blank		
35	112.6 - 113.2	0.6	0.09		
36	112.8 - 114.4	1.6	0.42		
37	113.6 - 115.2	1.6	0.57		
38	112.4 - 113.0	0.6	0.08		
39			Blank		
40	99.6 - 100.4	0.8	0.19		
41			Blank		
42	108.2-- 109.6	1.4	0.12		
43			Blank		
44			Blank		
45	Plugged at 92'				
46			Blank		
47	101.6 - 103.0	1.4	0.19		
48			Blank		
49			Blank		
50			Blank		
51			Blank		
52			Blank		
53			Blank		
54			Blank		
55			Blank		
56			Blank		
57	112.2 - 114.6	2.4	0.65		
58					
59	110.4 - 111.8	1.4	0.30		
60			Blank		
61			Blank		
62			Blank		
63			Blank		
64			Blank		
65					
66					

DRILLING RESULTS SIMPSON # 1 NORTH CARRIZO

HOLE	DEPTH	ORE THICKNESS	URANIUM %	VANADIUM	REMARKS
B-67	83.0 - 83.6	0.6	0.04		
68	81.0 - 81.8	0.8	0.05		
69			Blank		
70	81.2 - 81.8	0.6	0.05		
71	81.0 - 81.8	0.8	0.04		
72			Blank		
73			"		
74			"		
75	77.0 - 77.8	0.8	0.05		
76			Blank		
77			"		
78			"		
79			"		
80	95.4 - 96.2	0.8	0.09		
81	96.6 - 97.4	0.8	0.14		
82	97.0 - 97.6	0.6	0.10		
83	96.2 - 96.8	0.6	0.07		
84	96.4 - 97.0	0.6	0.09		
85	Caved - wet				
86	90.2 - 91.2	1.0	0.22		
87	89.4 - 94.8	5.4	0.42		
88	88.6 - 94.8	5.8	0.43		
89	90.2 - 91.4	1.2	0.12		
90	92.2 - 93.6	1.4	0.12		
	93.6 - 94.6	1.0	0.26		
91	89.8 - 92.0	2.2	0.42		
	94.2 - 95.6	1.4	0.14		
92	90.0 - 90.6	0.6	0.23		
93	89.4 - 90.0	0.6	0.17		
94	91.0 - 94.0	3.0	0.39		
95	91.6 - 92.8	0.8	0.24		
96	91.4 - 93.2	1.8	0.26		
97	94.0 - 94.6	0.6	0.16		
98	93.4 - 96.6	3.2	0.11		
99	117.0 - 118.2	1.2	0.10		
100	116.0 - 117.4	1.4	0.15		
101	115.0 - 116.6	1.6	0.10		
102	118.2 - 119.4	1.2	0.33		
103			Blank		
S-1			Blank		
2	82.5 - 84.0	1.5	0.29		
3	84.0 - 85.0	1.0	0.14		
4	Less than		0.10		
5	82.4 - 92.8	10.4	0.27		
6	91.0 - 100.0	9.0	0.24		
7			Mined		
8			Mined		
9			Mined		
10	76.4 - 78.6	2.2	0.34		
11	79.2 - 81.6	2.4	0.25		
12			Blank		
13			Blank		
14	90.0 - 99.0	9.0	0.32		
15	92.4 - 94.8	2.4	0.30		
16			Blank		
17			Mined		
18			Mined		
19	Less than		0.06	Trace	
20	103.0 - 103.6	0.6	0.16	Trace	
21			Blank		
22	101.0 - 101.8	0.8	0.24	Fair	
23	Less than		0.06	Trace	
24	93.6 - 97.2	3.6	0.11	Fair	
	97.2 - 98.8	1.6	0.39	Fair	
25	92.8 - 93.8	1.0	0.25	Fair	
	96.6 - 97.2	0.6	0.21	Fair	
26	90.8 - 91.6	0.8	0.26	Fair	
	93.0 - 93.8	0.8	0.19	Fair	
27			Blank		
28			Blank		
29			Plugged		

DRILLING RESULTS SLIPSON / 1 NORTH CORRIDOR

HOLE	DEPTH	ORE THICKNESS	% URANIUM	VANADIUM	REMARKS
S-30	Less than		0.06		
31			Blank		
32			Blank		
33			Plugged		
34			Blank		
35			Blank		
36			"		
37			"		
38			"		
39			"		
40			"		
41			"		
42			"		
43			"		
44			"		
45	100.4 - 101.2	0.8	0.11		
46	93.6 - 94.2	0.6	0.08		
47	95.6 - 96.2	0.6	0.07		
48	95.0 - 95.6	0.6	0.13		
49	97.2 - 98.4	1.2	0.11		
50	through 89		Blank		
90	118.0 - 119.2	1.2	0.08	Good	
91	109.2 - 110.0	0.8	0.13	Very high	
	117.4 - 120.6	3.2	0.39	Very high	
92	119.8 - 120.6	0.8	0.21	Good	
93	115.0 - 118.4	3.4	0.07		
94	112.2 - 112.6	0.4	0.10	Fair	
95			Blank		
96	113.4 - 122.0	8.6	0.04		
97	115.8 - 118.2	2.4	0.05		
98	115.4 - 116.2	0.8	0.19	Trace	
99	116.6 - 119.0	2.4	0.33	Fair	
100	Less than		0.05		
101	116.6 - 118.4	1.8	0.12	Good	
	118.4 - 121.8	2.4	0.23	Good	
102	115.8 - 116.8	1.0	0.18	Good	
	116.8 - 118.0	1.2	0.14	Good	
	118.0 - 122.2	4.2	0.11	Good	
103	118.2 - 118.8	0.6	0.21	Fair	
104	116.8 - 118.6	1.8	0.09		
105	43.6 - 44.2	0.6	0.18		
	115.6 - 119.2	3.6	0.11	Fair	
	119.2 - 120.6	1.4	0.30	Fair	
106	44.4 - 45.0	0.6	0.20		
	118.8 - 119.6	0.8	0.22	Good	
	122.8 - 124.0	1.6	0.13	Good	
107	121.2 - 122.0	1.8	0.24	Trace	
108	Less than		0.07		
109	114.0 - 116.4	2.4	0.13	Good	
	116.4 - 117.2	0.8	0.22	Good	
	117.2 - 118.2	1.0	0.18	Good	
	118.2 - 121.0	2.8	0.34	Good	
110	121.6 - 122.6	1.0	0.13		
111	117.2 - 117.8	0.6	0.28	Trace	
112	122.8 - 123.4	0.6	0.17		
113	Less than		0.04		
114	116.2 - 118.0	1.8	0.21	Good	
115	119.4 - 121.0	1.6	0.49	Fair	
116	117.4 - 118.2	0.8	0.15		
117	Less than		0.02	Trace	
118	118.8 - 119.4	0.6	0.13	Good	
119			Blank		
120			"		
121	109.4 - 110.2	0.8	0.07		
122			Blank		
123	116.4 - 117.0	0.6	0.51	Good	
124	119.2 - 120.0	0.8	0.09	9 ft. Good	
125			Blank	Trace	
126	112.2 - 123.0	0.8	0.36	6 ft. Very good	
127	113.4 - 114.2	0.8	0.07	6 ft. Fair	
[illegible]	[illegible] - [illegible]	[illegible]	0.34	Trace	

DRILLING RESULTS SIMPSON # 1 NORTH CARRIZO

HOLE	DEPTH	ORE THICKNESS	% URANIUM	VANADIUM	REMARKS
S-109					
130			Blank		
131			"		
132			"		
133	112.8 - 113.8	1.0	0.14		
134	Less than		0.06		
135			Blank		
136	111.8 - 117.6	5.8	0.31	Good	
137	114.8 - 116.6	1.8	0.14	Good	
	116.6 - 119.0	2.4	0.42	Good	
A-1	63.6 - 65.6	2.0	0.27	Fair	
2	60.6 - 61.8	0.8	0.34	Low	
3	60.6 - 61.2	0.3	0.22	Good	
4	Less than		0.04	Trace	
5	Less than		0.03	Trace	
6	Less than		0.02	Trace	
7	56.6 - 57.2	0.6	0.06	"	
8	72.8 - 74.2	1.4	0.11	"	
	74.2 - 75.2	1.0	0.16	"	
	75.2 - 77.4	2.2	0.07	"	
9	Plugged				
10			Blank		
11			"		
12			"		
13			"		
14			"		
15	61.0 - 62.0	1.0	0.10		
	78.6 - 79.6	1.0	0.10		
16	76.6 - 77.2	0.6	0.19	Fair	
17	75.0 - 75.6	0.4	0.21	Trace	
18	58.2 - 59.0	0.8	0.10	Fair	
	59.0 - 66.0	7.0	0.07	Fair	
19	56.8 - 59.2	2.4	0.13	Trace	
	59.2 - 62.6	3.0	0.06	"	
	62.6 - 63.4	0.8	0.16	"	
	76.6 - 79.0	2.4	0.08	"	
	79.0 - 81.6	2.6	0.11	"	
20	Less than		0.03		
21	64.4 - 67.2	2.0	0.29	Good	
22	67.2 - 68.0	0.8	0.10	Low	
9X	Less than		0.03	Trace	
23X	59.4 - 60.8	1.4	0.27		
	64.0 - 65.7	1.2	0.33		
23	Abandoned with steel in hole				
24	61.4 - 62.4	1.0	0.25		
25					
26	Caved		Plugged		

DRILLING RESULTS SINKOR # 1 NORTH CARLEZO

HOLE	DEPTH	ORE THICKNESS	% URANIUM	VANADIUM	REMARKS
C-1	92.4 - 93.4	1.0'	0.22		
	93.6 - 96.4	0.8	0.19		
2	97.0 - 97.6	0.6	0.08		
3	95.2 - 97.2	2.0	0.27		
4	91.2 - 92.8	1.6	0.10		
5	93.8 - 95.2	1.4	0.27		
	97.2 - 97.8	0.6	0.24		
6	90.8 - 92.6	1.8	0.32		
7	87.8 - 89.8	2.0	0.51		
8	89.2 - 90.8	1.6	0.33		
9			Blank		
10			Blank		
11			Blank		
12	95.6 - 96.8	1.2	0.30		
12	91.0 - 92.6	1.6	0.34		
14	89.6 - 90.2	0.6	0.10		
15	85.4 - 89.4	4.0	0.59		
16			Blank		
17	86.0 - 86.6	0.6	0.26		
18	85.0 - 86.2	1.2	0.34		
19	85.8 - 89.8	4.0	0.24		
20	90.8 - 91.8	1.0	0.31		
21			Blank		
22			"		
23	92.6 - 93.8	1.2	0.25		
24			Blank		
25	49.4 - 50.0	0.6	0.12		
26			Blank		
27			Blank		
28			Blank		
29	85.0 - 85.6	0.6	0.23		
30	86.2 - 86.6	0.4	0.21		
31			Blank		
32	85.2 - 85.8	0.6	0.08		
33	87.8 - 88.8	1.0	0.13		
34			Blank		
35			Blank		
36			Blank		
37	82.4 - 83.0	0.6	0.17		
38	84.4 - 85.4	1.0	0.04		
39	83.2 - 84.0	0.8	0.13		
40			Blank		
41			Blank		
42			Blank		
43			Blank		
44	92.6 - 93.4	0.8	0.18		
45			Blank		
46			Blank		
47	85.8 - 91.2	5.4	0.53		
48	86.6 - 88.8	3.2	0.55		
49	84.6 - 89.4	4.8	0.50		
50	85.0 - 87.0	2.0	0.11		
51			Blank		
52			"		
53			"		
54	85.8 - 86.8	1.0	0.13		
55	95.2 - 91.4	1.2	0.24		
56	96.4 - 97.0	0.6	0.05		
57	95.0 - 96.0	1.0	0.12		
58	95.4 - 96.0	0.6	0.06		
59	92.4 - 94.6	2.2	0.15		
60	95.2 - 96.0	0.5	0.12		
61	88.2 - 89.0	0.8	0.22		
62	87.8 - 88.6	1.8	0.15		
63			Blank		
64	85.0 - 88.2	3.2	0.16		
	88.2 - 90.4	2.2	0.46		
65	88.0 - 89.0	1.0	0.32		
66	87.6 - 89.6	2.0	0.36		
67	87.0 - 90.2	3.2	0.55		

DRILLING RESULTS SIMPSON # 1 NORTH CARRIZO

HOLE	DEPTH	ORE THICKNESS	% URANIUM	VANADIUM	REMARKS
C-68	88.8 - 89.8	1.0	0.14		
69			Blank		
70	90.4 - 91.2	0.8	0.20		
71			Blank		
72	88.0 - 89.6	1.0	0.20		

DRILLING RESULTS SUMMARY # 1 NORTH CARRIZO

DMEA-3933

HOLE	DEPTH	ORE THICKNESS	% URANIUM	VANADIUM	REMARKS
B-1	108.4 - 114.8	6.4	0.13	Fair	
	114.8 - 118.6	3.8	0.23	Fair	
2		Less than	0.03	-	
3	116.0 - 119.4	[illegible]	0.14	Good	
4	105.2 - 111.6	6.4	0.14	Good	
	111.6 - 118.8	7.2	0.45	Good	
5		Less than	0.06	-	
6			Blank	-	
7	118.2 - 119.2	1.0	0.16	Poor	
8			Blank	-	
9			Blank	-	
10	116.8 - 117.4	0.6	0.09	Poor	
11			Blank	-	
12			Blank	-	
13			Blank	-	
14			Blank	-	
15			Blank	-	
16			Blank	-	
17			Blank	-	
18			Blank	-	
19	108.0 - 109.0	1.0	0.17	Good	
20		Holed to drift			Ventilation
21		Holed to drift			Holes-all on
22		Blank			VCA Property
23	107.4 - 108.0	0.6	0.12		"
24	115.0 - 115.6	0.6	0.33		"
25	106.8 - 107.4	0.6	0.24		"
26			Blank		"
27			Blank		"
28			Blank		"
29	112.8 - 113.8	1.0	0.15		"
30	99.0 - 109.2	10.2	0.15		"
	109.2 - 114.0	4.8	0.31		"
31	104.6 - 106.6	2.0	0.34		"
	112.0 - 113.8	1.8	0.40		"
32	112.4 - 113.2	0.8	0.15		"
33			Blank		
34			Blank		
35	112.6 - 113.2	0.6	0.09		
36	112.8 - 114.4	1.6	0.42		
37	113.6 - 115.2	1.6	0.57		
38	112.4 - 113.0	0.6	0.09		
39			Blank		
40	99.6 - 100.4	0.8	0.19		
41			Blank		
42	108.2-- 109.6	1.4	0.12		
43			Blank		
44			Blank		
45	Plugged at 98'				
46			Blank		
47	101.6 - 103.0	1.4	0.19		
48			Blank		
49			Blank		
50			Blank		
51			Blank		
52			Blank		
53			Blank		
54			Blank		
55			Blank		
56			Blank		
57	112.2 - 114.6	2.4	0.65		
58					
59	110.4 - 111.8	1.4	0.30		
60			Blank		
61			Blank		
62			Blank		
63			Blank		
64			Blank		
65					
66					

DRILLING RESULTS SIMPSON # 1 NORTH CARLYZO

HOLE	DEPTH	ORE THICKNESS	URANIUM %	VANADIUM	REMARKS
B-67	83.0 - 83.6	0.6	0.04		
68	81.0 - 81.8	0.8	0.05		
69			Blank		
70	81.2 - 81.8	0.6	0.05		
71	81.0 - 81.8	0.8	0.04		
72			Blank		
73			"		
74			"		
75	77.0 - 77.8	0.8	0.05		
76			Blank		
77			"		
78			"		
79			"		
80	95.4 - 96.2	0.8	0.09		
81	96.6 - 97.4	0.8	0.14		
82	97.0 - 97.6	0.6	0.10		
83	96.2 - 96.8	0.6	0.07		
84	96.4 - 97.0	0.6	0.09		
85	Caved - wet				
86	90.2 - 91.2	1.0	0.22		
87	89.4 - 94.8	5.4	0.42		
88	88.6 - 94.8	5.8	0.43		
89	90.2 - 91.4	1.2	0.12		
90	92.2 - 93.6	1.4	0.12		
	93.6 - 94.6	1.0	0.26		
91	89.8 - 92.0	2.2	0.42		
	94.2 - 95.6	1.4	0.14		
92	90.0 - 90.6	0.6	0.23		
93	89.4 - 90.0	0.6	0.17		
94	91.0 - 94.0	3.0	0.39		
95	91.6 - 92.8	0.8	0.24		
96	91.4 - 93.2	1.8	0.26		
97	94.0 - 94.6	0.6	0.16		
98	93.4 - 96.6	3.2	0.11		
99	117.0 - 118.2	1.2	0.10		
100	116.0 - 117.4	1.4	0.15		
101	115.0 - 116.6	1.6	0.10		
102	118.2 - 119.4	1.2	0.33		
103			Blank		
S-1			Blank		
2	82.5 - 84.0	1.5	0.29		
3	84.0 - 85.0	1.0	0.14		
4	Less than		0.10		
5	82.4 - 92.8	10.4	0.27		
6	91.0 - 100.0	9.0	0.24		
7			Mined		
8			Mined		
9			Mined		
10	76.4 - 78.6	2.2	0.34		
11	79.2 - 81.6	2.4	0.25		
12			Blank		
13			Blank		
14	90.0 - 99.0	9.0	0.32		
15	92.4 - 94.8	2.4	0.30		
16			Blank		
17			Mined		
18			Mined		
19	Less than		0.06	Trace	
20	103.0 - 103.6	0.6	0.16	Trace	
21			Blank		
22	101.0 - 101.8	0.8	0.34	Fair	
23	Less than		0.06	Trace	
24	93.6 - 97.2	3.6	0.11	Fair	
	97.2 - 98.8	1.6	0.3[illegible]	Fair	
25	92.8 - 93.[illegible]	1.0	0.25	Fair	
	96.6 - 97.2	0.6	0.21	Fair	
26	90.[illegible] - 91.6	[illegible].8	0.26	Fair	
	91.0 - 92.8	1.8	0.19	Fair	
27			Blank		
28			Blank		
29			Plugged		

DRILLING RESULTS SLIPPER # 1 NORTH CORRIDO

HOLE	DEPTH	ORE THICKNESS	% URANIUM	VANADIUM	REMARKS
S-30	Less than		0.06		
31			Blank		
32			Blank		
33			Plugged		
34			Blank		
35			Blank		
36			"		
37			"		
38			"		
39			"		
40			"		
41			"		
42			"		
43			"		
44			"		
45	100.4 - 101.2	0.8	0.11		
46	93.6 - 94.2	0.6	0.08		
47	95.6 - 96.2	0.6	0.07		
48	95.0 - 95.6	0.6	0.13		
49	97.2 - 98.4	1.2	0.11		
50	through 89		Blank		
90	118.0 - 119.2	1.2	0.08	Good	
91	109.2 - 110.0	0.8	0.13	Very high	
	117.4 - 120.6	3.2	0.39	Very high	
92	119.8 - 120.6	0.8	0.21	Good	
93	115.0 - 118.4	3.4	0.07		
94	112.2 - 112.6	0.4	0.10	Fair	
95			Blank		
96	113.4 - 122.0	8.6	0.04		
97	115.8 - 118.2	2.4	0.05		
98	115.4 - 116.2	0.8	0.19	Trace	
99	116.6 - 119.0	2.4	0.33	Fair	
100	Less than		0.03		
101	116.6 - 118.4	1.8	0.12	Good	
	118.4 - 121.8	2.4	0.23	Good	
102	115.8 - 116.8	1.0	0.18	Good	
	116.8 - 118.0	1.2	0.14	Good	
	118.0 - 120.2	4.2	0.11	Good	
103	118.2 - 118.8	0.6	0.21	Fair	
104	116.8 - 118.6	1.8	0.09		
105	43.6 - 44.2	0.6	0.18		
	115.6 - 119.2	3.6	0.11	Fair	
	119.2 - 120.6	1.4	0.30	Fair	
106	44.4 - 45.0	0.6	0.20		
	118.8 - 119.6	0.8	0.22	Good	
	122.4 - 124.0	1.6	0.13	Good	
107	120.2 - 122.0	1.8	0.24	Trace	
108	Less than		0.07		
109	114.0 - 116.4	2.4	0.13	Good	
	116.4 - 117.2	0.8	0.22	Good	
	117.2 - 118.2	1.0	0.18	Good	
	118.2 - 121.0	2.8	0.34	Good	
110	121.6 - 122.6	1.0	0.13		
111	117.2 - 117.8	0.6	0.28	Trace	
112	122.8 - 123.4	0.6	0.17		
113	Less than		0.04		
114	116.2 - 118.0	1.8	0.21	Good	
115	119.4 - 123.0	3.6	0.49	Fair	
116	115.4 - 118.2	2.8	0.15		
117	Less than		0.02	Trace	
118	118.8 - 119.4	0.6	0.13	Good	
119			Blank		
120			"		
121	109.4 - 110.2	0.8	0.07		
122			Blank		
123	116.4 - 123.0	6.6	0.51	Good	
124	118.2 - 120.0	1.8	0.09	3 ft. Good	
125			Blank	Trace	
126	117.2 - 123.0	5.8	0.26	6 ft. Very good	
127	114.4 - 114.8	0.4	0.07	6 in. Fair	
128	119.4 - 121.4	2.0	0.33	Trace	

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]-109					
[illegible]0			[illegible]		
[illegible]			"		
[illegible]2			"		
[illegible]	[illegible] - [illegible]	[illegible].0	[illegible]		
[illegible]	[illegible]		0.06		
[illegible]			[illegible]		
[illegible]	[illegible] - [illegible]	[illegible]	[illegible]		Good
[illegible]	[illegible] - [illegible]	[illegible]	[illegible]		Good
	[illegible] - 119.0	2.4	0.42		Good
[illegible]-1	[illegible] - [illegible]	[illegible]	[illegible]		Fair
	[illegible] - 51.8	0.8	0.34		Low
	[illegible] - [illegible].2	0.5	0.22		Good
4	Less than		0.04		Trace
5	Less than		0.02		Trace
6	Less than		[illegible]		Trace
7	[illegible] - 57.2	[illegible]	0.06		"
[illegible]	[illegible] - [illegible]	1.4	[illegible]		"
	[illegible] - [illegible]	1.0	0.16		"
	[illegible] - [illegible]	[illegible]	0.07		"
9	Plugged				
10			Blank		
11			"		
12			"		
13			"		
14			"		
15	[illegible] - 62.0	1.0	0.10		
	[illegible] - [illegible]	1.0	0.10		
16	[illegible] - 77.2	0.6	0.19		Fair
17	[illegible] - [illegible]	0.4	0.21		Trace
18	[illegible] - [illegible]	[illegible]	0.10		Fair
	[illegible] - [illegible]	7.0	0.07		Fair
19	[illegible] - 59.2	2.4	0.13		Trace
	[illegible] - [illegible]	0.0	0.06		"
	62.6 - [illegible]	0.8	0.16		"
	76.6 - [illegible]	2.4	0.08		"
	79.0 - 81.6	2.6	0.11		"
20	Less than		0.03		
21	64.4 - 67.2	2.0	0.29		Good
22	67.2 - [illegible]	0.8	0.10		Low
9X	Less than		0.03		Trace
23X	[illegible] - 60.8	1.4	0.27		
	[illegible] - [illegible]	1.2	0.33		
23	Abandoned with steel in hole				
24	61.4 - 62.4	1.0	0.25		
25					
26	Caved		Plugged		

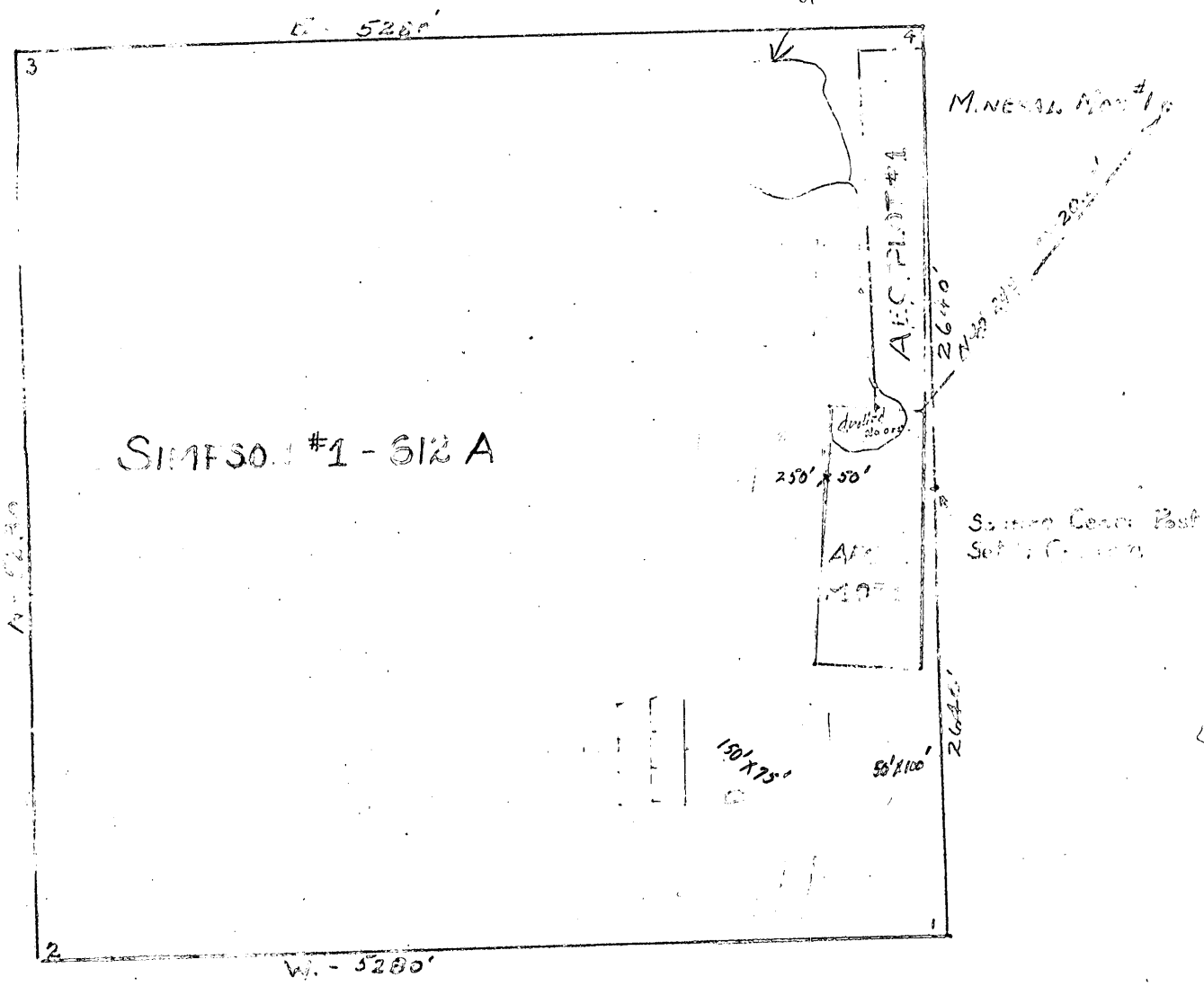
DRILLING RESULTS SITUATED 1 NORTH CORING

HOLE	DEPTH	ORE THICKNESS	% URANIUM	VANADIUM	REMARKS
C-1	92.4 - 93.4	1.0'	0.22		
	95.6 - 96.4	0.8	0.19		
2	97.0 - 97.6	0.6	0.08		
3	95.2 - 97.2	2.0	0.27		
4	91.2 - 92.8	1.6	0.10		
5	93.8 - 95.2	1.4	0.27		
	97.2 - 97.8	0.6	0.24		
6	90.8 - 92.6	1.8	0.32		
7	87.8 - 89.8	2.0	0.51		
8	89.2 - 90.8	1.6	0.33		
9			Blank		
10			Blank		
11			Blank		
12	95.6 - 96.8	1.2	0.30		
13	91.0 - 92.6	1.6	0.34		
14	89.6 - 90.2	0.6	0.10		
15	85.4 - 89.4	4.0	0.59		
16			Blank		
17	86.0 - 86.6	0.6	0.26		
18	85.0 - 86.2	1.2	0.34		
19	85.8 - 89.8	4.0	0.24		
20	90.8 - 91.8	1.0	0.31		
21			Blank		
22			"		
23	92.6 - 93.8	1.2	0.25		
24			Blank		
25	49.4 - 50.0	0.6	0.12		
26			Blank		
27			Blank		
28			Blank		
29	85.0 - 85.6	0.6	0.23		
30	86.2 - 86.6	0.4	0.21		
31			Blank		
32	85.2 - 85.8	0.6	0.08		
33	87.8 - 88.8	1.0	0.13		
34			Blank		
35			Blank		
36			Blank		
37	82.4 - 83.0	0.6	0.17		
38	84.4 - 85.4	1.0	0.04		
39	83.2 - 84.0	0.8	0.13		
40			Blank		
41			Blank		
42			Blank		
43			Blank		
44	92.6 - 93.4	0.8	0.18		
45			Blank		
46			Blank		
47	85.8 - 91.2	5.4	0.53		
48	86.6 - 88.8	3.2	0.55		
49	84.6 - 89.4	4.8	0.50		
50	85.0 - 87.0	2.0	0.11		
51			Blank		
52			"		
53			"		
54	85.8 - 86.8	1.0	0.13		
55	95.2 - 91.4	1.2	0.24		
56	96.4 - 97.0	0.6	0.05		
57	95.0 - 96.0	1.0	0.12		
58	95.4 - 96.0	0.6	0.06		
59	92.4 - 94.6	2.2	0.15		
60	95.2 - 96.0	0.5	0.12		
61	88.2 - 89.0	0.8	0.22		
62	87.8 - 88.6	1.8	0.15		
63			Blank		
64	85.0 - 88.2	3.2	0.16		
	88.2 - 90.4	2.2	0.46		
65	88.0 - 89.0	1.0	0.32		
66	87.6 - 89.6	2.0	0.36		
67	87.0 - 90.2	3.2	0.55		

DRILLING RESULTS SIMPSON # 1 NORTH CARRIZO

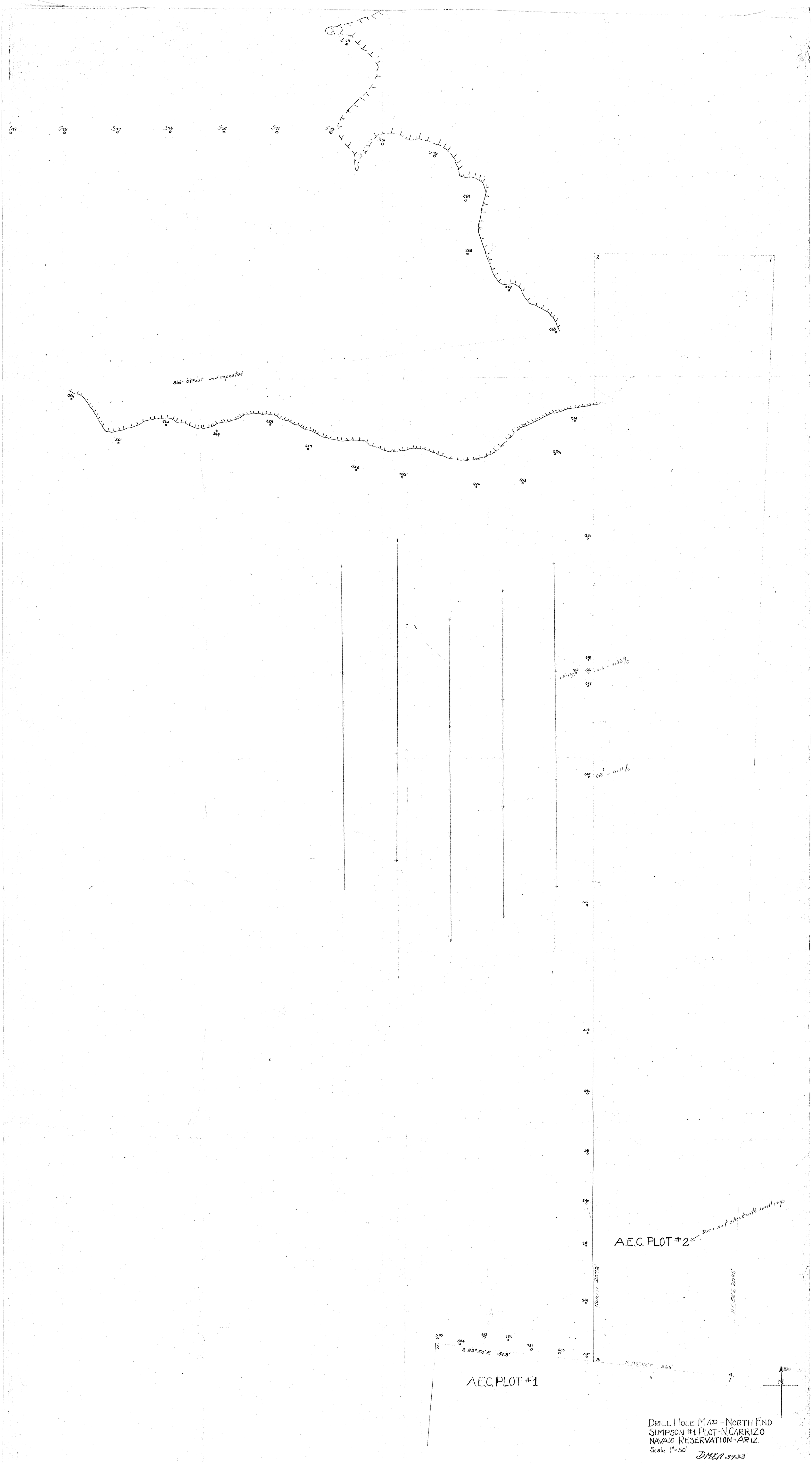
HOLE	DEPTH	ORE THICKNESS	% URANIUM	VANADIUM	REMARKS
C-68	88.8 - 89.8	1.0	0.14		
69			Blank		
70	90.4 - 91.2	0.8	0.20		
71			Blank		
72	88.0 - 89.6	1.0	0.20		

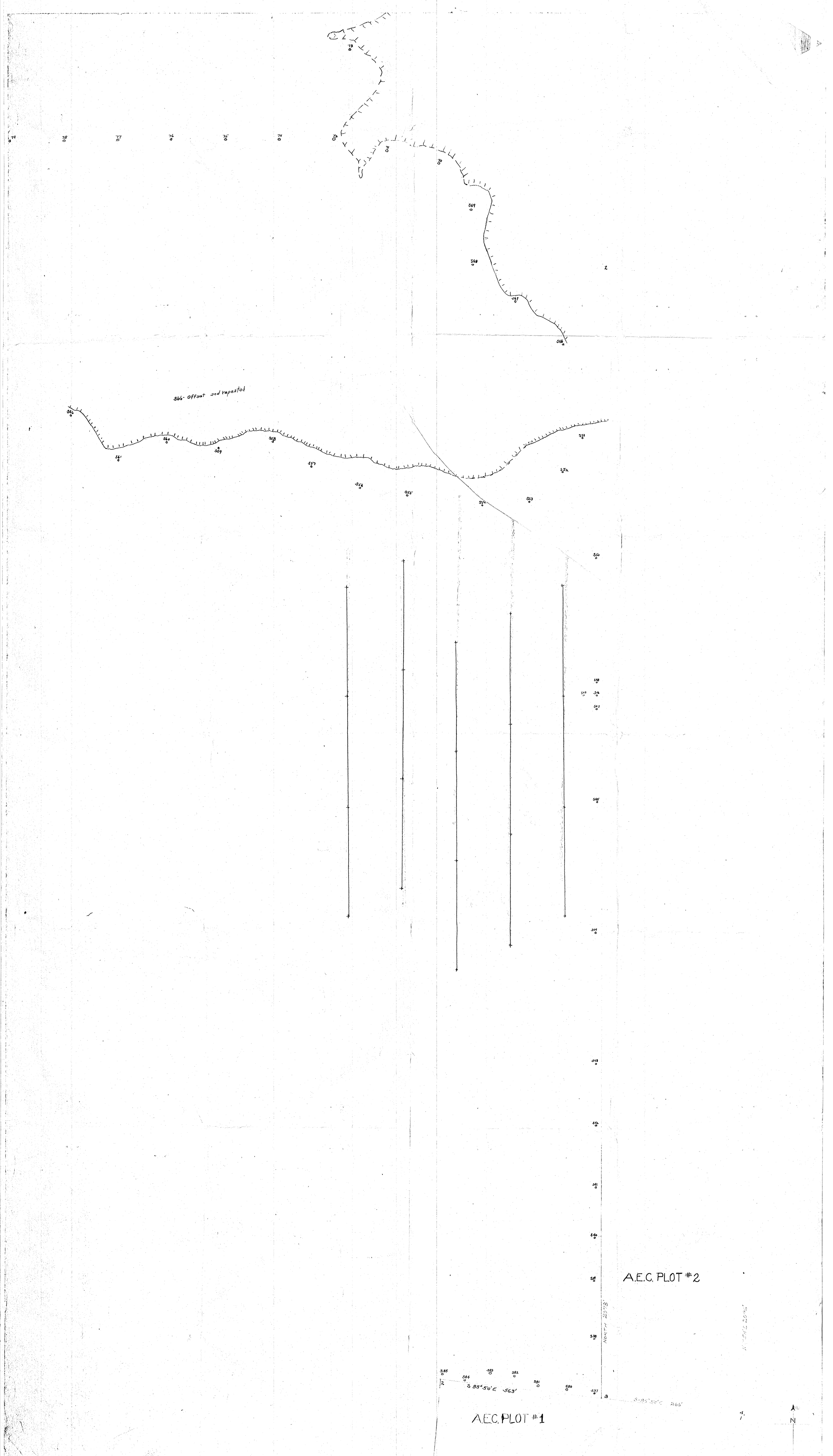
lines drilled - mostly blank.



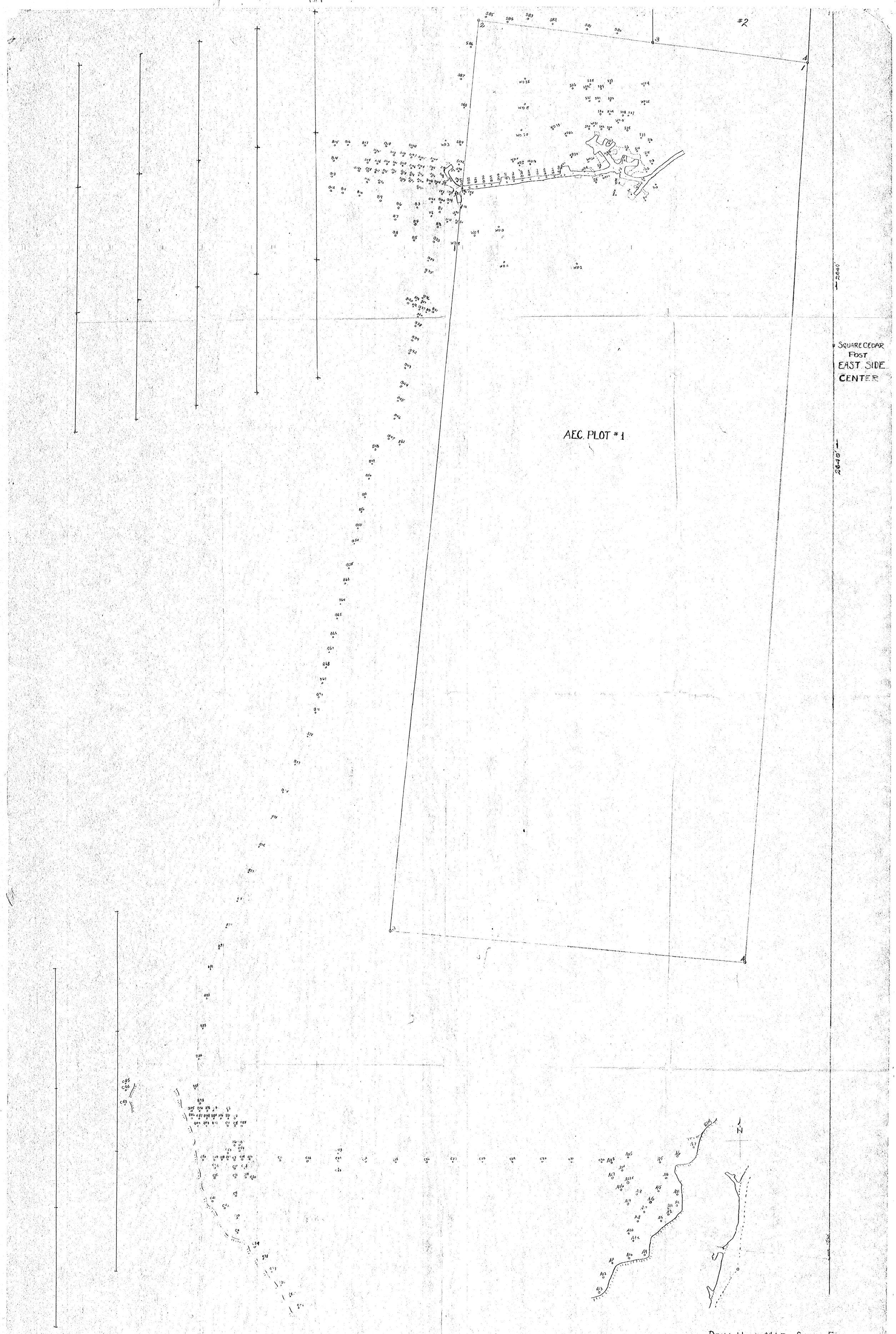
SIMPSON #1 PLOT
NAVAJO RESERVATION - DIST #9
A[illegible] CO. ARIZ
Scale 1" = 1000'

DMER-3933


S66- offset and repeated
A.E.C. PLOT #2
Does not check with small map
NORTH 2078'
N 19°58'E 2096'
S 85°50'E 563'
S 85°50'E 266'
A.E.C. PLOT #1
N
DRILL HOLE MAP - NORTH END
SIMPSON #1 PLOT-N.CARRIZO
NAVAJO RESERVATION-ARIZ.
Scale 1" = 50'
DMEM 3133

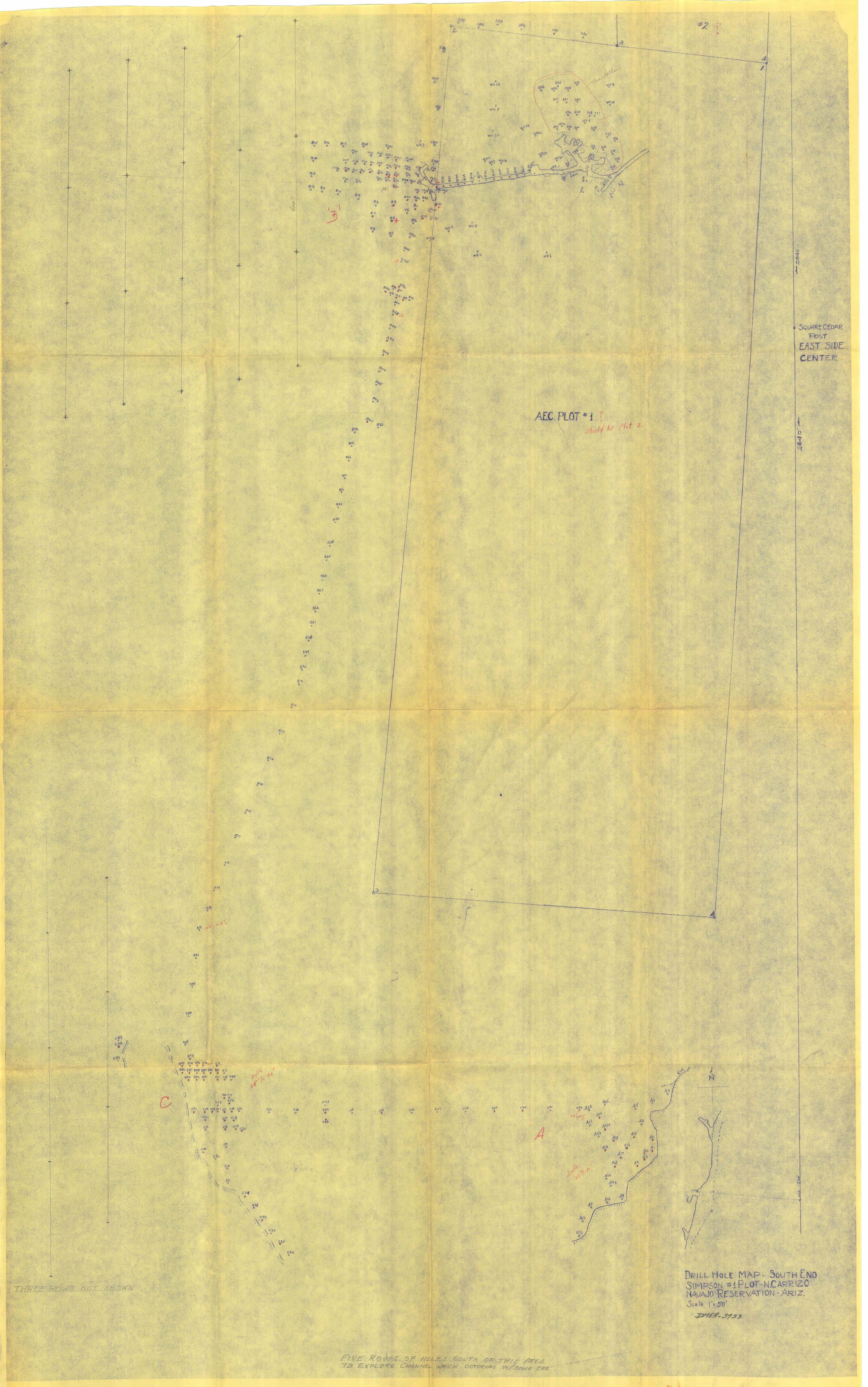


DRILL HOLE MAP - NORTH END
SIMPSON #1 PLOT - N. CARRIZO
NAVAJO RESERVATION - ARIZ.
Scale 1" = 50'
DMEA-3933



DRILL HOLE MAP - SOUTH END
SIMPSON #1 PLOT - N. CARRIZO
NAVAJO RESERVATION - ARIZ.
Scale 1" = 50'

DMEA-3983


#2 ?
AEC. PLOT #1 ?
should be Plot 2.
SQUARE CEDAR POST
EAST SIDE CENTER
2640'
B
C
A
depth 85' to 90'
depth 60' to 80'
RIM
N
THREE ROWS NOT SHOWN
FIVE ROWS OF HOLES SOUTH OF THIS AREA TO EXPLORE CHANNEL WHICH OUTCROPS W/ SOME ORE
DRILL HOLE MAP - SOUTH END
SIMPSON #1 PLOT - N. CARRIZO
NAVAJO RESERVATION - ARIZ.
Scale 1" = 50'
DMEA-3933